STP 11-74G14-SM-TG
HEADQUARTERS
DEPARTMENT OF THE ARMY

Soldier's Manual and Trainer's Guide

MOS 74G

TELECOMMUNICATIONS COMPUTER OPERATOR-MAINTAINER

SKILL LEVELS 1, 2, 3, AND 4

Soldier Training Publication
No. 11-74G14-SM-TG

Headquarters
Department of the Army
Washington, DC

SOLDIER'S MANUAL AND TRAINER'S GUIDE

MOS 74G
TELECOMMUNICATIONS COMPUTER OPERATOR-MAINTAINER
SKILL LEVELS 1, 2, 3, AND 4

TABLE OF CONTENTS

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

---

*This publication supersedes STP 11-39G13-SM-TG, 6 April 1994.

PAGE

PAGE

PREFACE

This publication is for skill levels (Sls) 1, 2, 3, and 4 soldiers holding military occupational specialty (MOS) 74G and for trainers and first-line supervisors. It contains standardized training objectives, in the form of task summaries, to train and evaluate soldiers on critical tasks which support unit missions during wartime. Trainers and first-line supervisors should ensure soldiers holding MOS 74G, SL 1/2/3/4 have access to this publication. It should be made available in the soldier's work area, unit learning center, and unit libraries.

This manual applies to both Active and Reserve Component soldiers.

The proponent of this publication is the U.S. Army Signal Center and Fort Gordon. Send comments and recommendations on DA Form 2028 directly to Commander, U.S. Army Signal Center and Fort Gordon, ATTN: ATZH-DTM, Fort Gordon, GA 30905-5074.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

INTRODUCTION

GENERAL

This manual identifies the individual MOS training requirement for soldiers in MOS 74G. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. This manual is the primary MOS reference to support the self-development and training of 74G soldiers.

Use this manual with the soldier's manuals of common tasks (STP 21-1-SMCT and STP 21-24-SMCT), Army Training and Evaluation Programs (ARTEPs), and FM 25-101, *Battle Focused Training*, to establish effective training plans and programs which integrate soldier, leader, and collective tasks.

TASK SUMMARIES

Task summaries outline the wartime performance requirements of each critical task in the soldier's manual (SM). They provide the soldier and the trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information you must know, and the skills that you must perform to standard for each task. The format for the task summaries included in this SM is as follows:

• Task Title. The task title identifies the action to be performed.

• Task Number. A 10-digit number identifies each task or skill. Include this task number, along with the task title, in any correspondence relating to the task.

• Conditions. The task conditions identify all the equipment, tools, references, job aids, and supporting personnel which the soldier needs to perform the task in wartime. This section identifies any environmental conditions which can alter task performance such as visibility, temperature, and wind. This section also identifies any specific cues or events (a chemical attack or identification of a threat vehicle) which trigger task performance.

• Standards. The task standards describe how well and to what level you must perform a task under wartime conditions. Standards are typically described in terms of accuracy, completeness, and speed.

• Training and Evaluation. This section may contain all or part of the following: training information outline, evaluation preparation subsection, and evaluation guide. The training information outline includes detailed training information. The evaluation preparation subsection indicates necessary modifications to task performance in order to train and evaluate a task that cannot be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to

accommodate these modifications and any instructions that should be given to the soldier before evaluation. The evaluation guide identifies the specific actions, known as performance measures, that the soldier must do to successfully complete the task. These actions are listed in a pass/fail format for easy evaluation. Each evaluation guide contains a feedback statement that indicates the requirements (for example, number of performance measures passed) for receiving a GO on the evaluation of each task.

• References. This section identifies references that provide more detailed and thorough explanations of task performance requirements than that given in the task summary description.

Additionally, some task summaries include safety statements and notes. Safety statements (danger, warning, caution) alert users to the possibility of immediate death, personal injury, or damage to equipment. Notes provide a small, extra supportive explanation or hint relative to the performance measures.

SOLDIER'S RESPONSIBILITIES

Each soldier is responsible for performing individual tasks which the first line supervisor identifies based on the unit's mission essential task list (METL). The soldier must perform the task to the standards listed in the SM. If the soldier has a question about how to do a task, or which tasks in this manual he must perform, it is the soldier's responsibility to ask the first line supervisor for clarification. The first line supervisor knows how to perform each task, or can direct the soldier to the appropriate training materials.

NCO SELF-DEVELOPMENT AND THE SOLDIER'S MANUAL

Self-development is one of the key components of the leader development program. It is a planned progressive and sequential program followed by leaders, to enhance and sustain their military competencies. It consist of individual study, research, professional reading, practice, and self-assessment. Under the self-development concept, the NCO, as an Army professional, has the responsibility to remain current in all phases of the MOS. The SM is the primary source for the NCO to use in maintaining MOS proficiency. The SM is an important study reference for the NCO.

Another important resource for NCO self-development is the Army Correspondence Course Program (ACCP). Refer to DA Pamphlet 351-20 for information on enrolling in this program and for a list of courses, or write to: Army Institute for Professional Development, U.S. Army Training Support Center, ATTN: ATIC-IPS, Newport News, VA 23628.

Unit learning centers are valuable resources for planning self-development programs. They can help access enlisted career maps, training support products, and extension training materials.

This manual is the primary reference the soldier uses to prepare for the commander's

evaluation of MOS-specific tasks. It contains task summaries of all critical tasks specific to the soldier's MOS and SL. Commanders and trainers must use this manual to plan and conduct training and commander's evaluations.

TRAINING SUPPORT

This manual includes the following appendix and information which will provide additional training support information.

• Appendix, DA Form 5164-R (Hands-On Evaluation). This appendix contains instructions for use of this form and a sample of the completed form.

• Glossary. The glossary, which follows the appendix, is a single comprehensive list of acronyms, abbreviations, definitions, and letter symbols.

• References. This section contains three lists of references, required, related, and recommended, which support training of all tasks in this SM. Required references are listed in the conditions statement and are required for the soldier to do the tasks. Related references are materials which provide more detailed information and a more thorough explanation of task performance. Recommended references provide information for additional training or information that is of benefit to the soldier.

CHAPTER 2

TRAINER'S GUIDE (TG)

GENERAL

The TG identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factor. Therefore, the TG is used for conducting unit training and not as rigid standard.

The TG provides information necessary for planning training requirements for the MOS. The TG—

- Identifies the subject areas in which soldiers must be trained.
- Identifies the critical tasks for each subject area.
- Specifies the references needed to train the tasks.
- Specifies where soldiers are initially trained on each task.
- Recommends how often to train each task to sustain proficiency.
- Recommends a strategy for cross-training soldiers.
- Recommends a strategy for training soldiers to perform higher level tasks.

BATTLE FOCUSED TRAINING

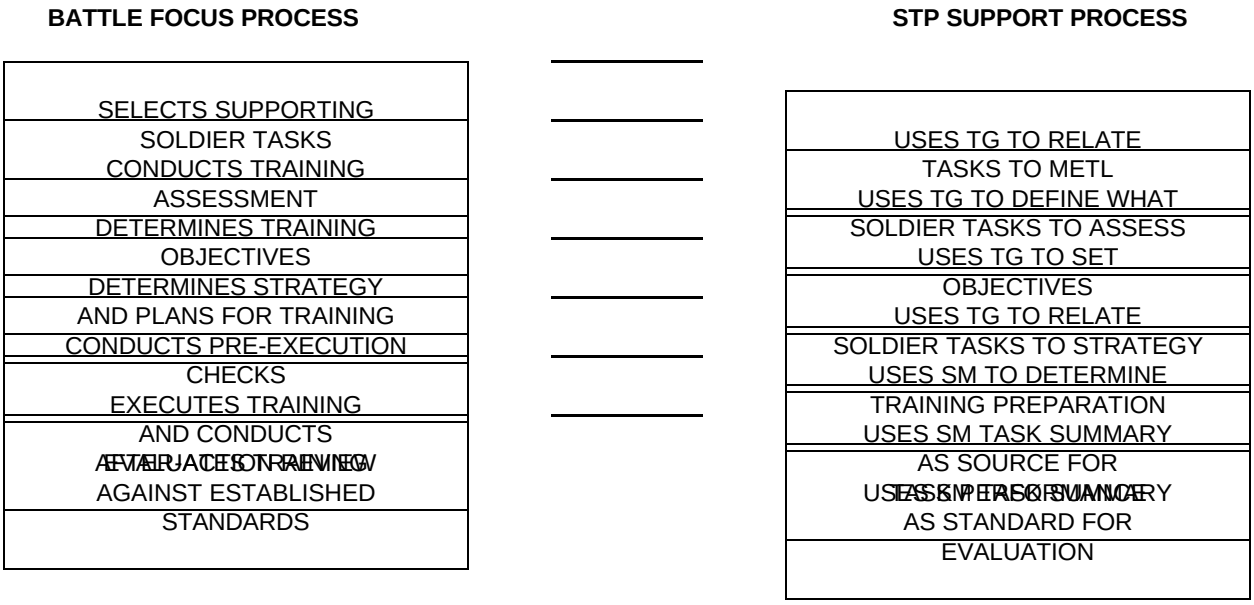
As described in FM 25-100, *Training the Force*, and FM 25-101, *Battle Focused Training*, the commander must first define the METL as the basis for unit training. Unit leaders use the METL to identify the collective, leader, and soldier tasks which support accomplishment of the METL. Unit leaders then assess the status of training and lay out the training objectives and the plan for accomplishing needed training. After preparing the long- and short-range plans, leaders then execute and evaluate training. Finally, the units's training preparedness is reassessed, and the training management cycle begins again. This process ensures that the unit has identified what is important for the wartime mission, that the training focus is applied to the necessary training, and that training meets established objectives and standards.

RELATIONSHIP OF SOLDIER TRAINING PUBLICATIONS (STPs) TO BATTLE FOCUSED TRAINING

The two key components of enlisted STPs are the TG and SM. The TG and SM give leaders important information to help in the battle focused training process. The TG relates soldier and leader tasks in the MOS and SL to duty positions and equipment. It provides information on where the task is trained, how often training should occur to sustain proficiency, and who in the unit should be trained. As leaders go through the assessment and planning stages, they should use the TG as an important tool in identifying what needs to be trained.

The execution and evaluation of soldier and leader training should rely on the Armywide training objectives and standards in the task summaries. The task summaries ensure that soldiers in any unit or location have the same definition of task performance, and that trainers evaluate the soldiers to the same standard.

The following diagram shows the relationship between battle focused training and the use of the TG and SM. The left-hand side of the diagram (taken from FM 25-101) shows the soldier training process, while the right side of the diagram shows how the STP supports each step of this process.



TRAINER'S RESPONSIBILITIES

Training soldier and leader tasks to standard and relating this training to collective mission-essential tasks is the NCO trainer's responsibility. Trainers use the steps below to plan and evaluate training.

- Identify soldier and leader training requirements. The NCO determines which tasks soldiers need to train on using the commander's training strategy. The unit's METL and ARTEP and the MTP in the TG are sources for helping the training define the individual training needed.

- Plan the training. Training for specific tasks can usually be integrated or conducted concurrently with other training or during "slack periods". The unit's ARTEP can assist in identifying soldier and leader tasks which can be trained and evaluated concurrently with collective task training and evaluation.

- Gather the training references and materials. The SM task summary lists all

references which can assist the trainer in preparing for the training of that task.

• Determine risk assessment and identify safety concerns. Analyze the risk involved in training a specific task under the current conditions at the time of scheduled training. Ensure that your training preparation takes into account those cautions, warnings, and dangers associated with each tasks.

• Train each soldier. Show the soldier how the task is done to standard and explain step-by-step how to do the task. Give each soldier one chance to do the task step-by-step.

• Emphasize training in mission-oriented protection posture (MOPP) level 4 clothing. Soldiers have difficulty performing even the very simple tasks in a nuclear/chemical environment. The combat effectiveness of the soldier and the unit can degrade quickly when trying to perform in MOPP 4. Practice is the best way to improve performance. The trainer is responsible for training and evaluating soldiers in MOPP 4 so they are able to perform critical wartime tasks to standards under nuclear/chemical environment.

• Check each soldier. Evaluate how well each soldier performs the tasks in this manual. Conduct these evaluations during individual training sessions or while evaluating soldier proficiency during the conduct of unit collective tasks. This manual provides an evaluation guide for each task to enhance the trainer's ability to conduct year-round, hands-on evaluations of tasks critical to the unit's mission. Use the information in the MTP as a guide to determine how often to train the soldier on each task to ensure that soldiers sustain proficiency.

• Record the results. The leader book referred to in FM 25-101, Appendix B, is used to record task performance and gives the leader total flexibility on the method of recording training. The trainer may use DA Forms 5164-R (Hands-on Evaluation) and 5165-R (Field Expedient Squad Book) as part of the leader book. The forms are optional and locally reproducible. STP 21-24 SMCT contains a copy of the forms and instructions for their use.

• Retrain and evaluate. Work with each soldier until he can perform the task to specific SM standards.

EVALUATION GUIDE

An evaluation guide exists for each task summary in the SM. Trainers use the evaluation guides year-round to determine if soldiers can perform their critical tasks to SM standards. Each evaluation guide contains one or more performance measures which identify what the trainer needs to observe to score a soldier's performance. Each step is clearly identified by a P (pass) and F (fail), located under the Results column on each evaluation guide. Some tasks involve a process which the trainer must observe as the soldier performs the task. For other tasks, the trainer must evaluate an "end product" resulting from doing the task. The following are some general points about using the evaluation guide to evaluate soldiers:

• Review the guide to become familiar with the information on which the soldier will be scored.

• Ensure the necessary safety equipment and clothing needed for proper performance of the job are on hand at the training site.

• Score each soldier according to the Performance Measures and Feedback section in the Evaluation Guide.

• Record the date and task performance (GO or NO-GO) in the leader book.

TRAINING TIPS FOR THE TRAINER

1. Prepare yourself.

• Get training guidance from your chain of command on when to train, which soldiers to train, availability of resources, and a training site.

• Get the training objective (task conditions and standards) from the task summary in this manual.

• Ensure you can do the task. Review the task summary and the references in the Reference section. Practice doing the task or, if necessary, have someone train you.

• Choose a training method. Some tasks provide recommended training methods in the Feedback section of the task summary.

• Prepare a training outline consisting of informal notes on what you want to cover during the training session.

• Practice the training presentation.

2. Prepare the resources.

• Obtain the required resources identified in the Conditions statement for each task.

• Gather equipment and ensure it is operational.

• Coordinate the use of training aids and devices.

• Prepare the training site according to the Conditions statement and Evaluation Preparation section of the task summary, as appropriate.

3. Prepare the soldiers.

• Tell the soldier what task to do and how well it must be done. Refer to the Standard

statement and Evaluation Preparation section for each task as appropriate.

- Caution soldiers about safety, environment, and security.

- Provide any necessary training on basic skills that soldiers need before they can be trained on the task.

- Pretest each soldier to determine who needs training in what areas by having each soldier perform the task. Use DA Form 5164-R and the Evaluation Guide in each task summary to make this determination.

4. Train the soldiers who fail the pretest.

- Demonstrate how to do the task or the specific performance steps to those soldiers who could not perform to SM standards. Have soldiers study the appropriate materials.

- Evaluate each soldier using the Evaluation Guide.

- Provide feedback to those soldiers who fail to perform to SM standards and have them continue to practice until they can perform to SM standards.

5. Record results in the leader book.

MILITARY OCCUPATIONAL SPECIALTY TRAINING PLAN

One of the key components of the TG is the MTP. The MTP has two parts to assist the commander in preparing a unit training plan which satisfies integration, cross-train, train-up, and sustainment training requirements for soldiers in this MOS.

PART ONE

Part one of the MTP shows the relationship of an MOS SL between duty position and critical tasks. The critical tasks are grouped by task commonality into subject areas. Section I lists subject area numbers and titles used throughout the MTP. The subject areas define the training requirements for each duty position within an MOS, and relate duty positions to subject areas and cross-training and train-up/merger requirements.

- Duty position column—contains the MOS duty positions, by SL, which have different training requirements.

- Subject area column—lists by subject area number, the subject areas in which the soldier must be proficient for that duty position.

- Cross-train column—lists the recommended duty for which soldiers should be cross trained.

• Train-up/merger column—lists the corresponding duty position for the next higher SL or MOS the soldier will merge into on promotion.

Section II identifies the total training requirements in terms of subject areas listed in Section I, for each duty position in an MOS.

PART TWO

Part two lists by subject areas, the critical tasks to be trained in an MOS, task number, task title, location, sustainment training frequency, and training SL.

• Subject area column—lists the subject area number and title in the same order as in the MTP, Part One, Section I.

• Task number column—lists the task numbers for all tasks included in the subject area.

• Task title column—lists the task title.

• Training location column—identifies the training location where the task is first trained to STP standards. If the task is first trained to standard in the unit, the word unit will be in this column. If the task is first trained to standard in the training base, it will identify the resident course where the task was taught. Figure 2-1 contains a list of training locations and their brevity codes.

AIT	Advanced Individual Training
ANCOC	Advanced Noncommissioned Officer's Course
BCT	Basic Combat Training
BNCOC	Basic Noncommissioned Officer's Course
OSUT	One Station Unit Training
PLDC	Primary Leadership Development Course
SMC	Sergeants Major Course
UNIT	Trained in the Unit

Figure 2-1. Training locations.

• Sustainment training frequency column—indicates the frequency at which tasks should be trained to ensure soldier maintains task proficiency. Figure 2-2 identifies the frequency codes to use in this column.

AN	annually
BM	bimonthly (once every 2 months)
MO	monthly
QT	quarterly
SA	semiannually (once every 6 months)

Figure 2-2. Frequency codes.

• Sustainment training SL column—lists the Sls of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to SM standards.

• Drill/ARTEP column—lists drill and ARTEP tasks, by number, which the individual critical tasks supports. This establishes the crosswalk between individual and collective training.

MOS TRAINING PLAN
MOS 74G
PART ONE: SUBJECT AREAS AND DUTY POSITIONS

SECTION I. SUBJECT AREA CODES

Skill Levels 1/2	Skill Level 3	Skill Level 4
1. AN/TYC-39A 2. AN/TYQ-30/31(V) 3. AN/UYK-100 4. AN/TSQ-158(V)1	5. Advanced Operations	6. Supervision Tasks 7. Performance Tasks

MOS TRAINING PLAN
MOS 74G
PART ONE

SECTION II. DUTY POSITION TRAINING REQUIREMENTS

SKILL LEVEL	DUTY POSITION	SUBJECT AREAS	CROSS-TRAIN	TRAIN-UP MERGER
SL1	System Control Operator-Maintainer	2, 3	NA	74G20 Senior System Control Operator-Maintainer 74G20 Senior Computer System Operator-Maintainer
	Computer System Operator-Maintainer	1, 3	NA	74G20 Senior Computer System Operator-Maintainer
	Automatic Message Switching Operator-Maintainer	1	NA	74G20 Senior Automatic Message Switching Operator-Maintainer 74G20 Senior Computer System Operator-Maintainer 74G20 Senior System Control Operator-Maintainer
	EPLRS NCS Operator-Maintainer	4	NA	74G20 Senior EPLRS NCS Operator-

				Maintainer 74G20 Senior Computer System Operator-Maintainer
SL2	Senior Computer System Operator-Maintainer	2, 3	NA	74G30 Computer System Supervisor
	Senior Automatic Message Switching Operator-Maintainer	1	NA	74G30 Computer System Supervisor
	Senior EPLRS NCS Operator-Maintainer	4	NA	74G30 EPLRS NCS Supervisor 74G30 Computer System Supervisor
SL3	Computer System Supervisor	1, 3, 5		74G40 Computer System Maintenance Chief 74G40 Computer System Staff NCO
	System Control Supervisor	2, 3, 5		74G40 Computer System Maintenance Chief 74G40 Computer System Staff NCO
	EPLRS NCS Supervisor	4, 5		74G40 Computer System Maintenance Chief 74G40 Computer System Staff NCO
SL4	System Control Staff Supervisor	2, 3, 5, 7		74Z50 Information System Chief 74Z50 Division Information Chief 74Z50 Corps Information Chief 74Z50 Information System Supervisor 74Z50 Record Telecommunications Chief 74Z50 First Sergeant 74Z50 Information System Operations NCO

SKILL LEVEL	DUTY POSITION	SUBJECT AREAS	CROSS-TRAIN	TRAIN-UP MERGER
SL4	Computer System Maintenance Chief	2, 3, 5, 7		74Z50 Information System Chief 74Z50 Division Information Chief 74Z50 Corps Information Chief 74Z50 Information System Supervisor 74Z50 Record Telecommunications Chief 74Z50 First Sergeant 74Z50 Information System Operations NCO
	Computer System Staff NCO	1-7		74Z50 Information System Chief 74Z50 Division Information Chief 74Z50 Corps Information Chief 74Z50 Information System Supervisor 74Z50 Record Telecommunications Chief 74Z50 First Sergeant 74Z50 Information System Operations NCO

PART TWO. CRITICAL TASKS

DUTY POSITION TASKS — SKILL LEVELS 1/2 MOS 74G

SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	DRILL ARTEP NO AND TASKS
1. AN/TYC-39A	113-603-1048	Install the AN/TYC-39A Central	UNIT	AN	1-4	11-5-0045

		Message Switching Automatic System				
	113-603-2198	Initialize the AN/TYC-39A Central Message Switching Automatic System	AIT	AN	1-4	11-5-0045
	113-603-3215	Maintain the AN/TYC-39A Power Group (PG)	AIT	AN	1-4	11-5-0045
	113-603-3216	Maintain the AN/TYC-39A Communications Equipment Support Group (CESG)	AIT	AN	1-4	11-5-0045
	113-603-3217	Maintain the AN/TYC-39A Communications Interface Group (CIG)	AIT	AN	1-4	11-5-0045
	113-603-3218	Maintain the AN/TYC-39A Time Division Interface Group Modified (TDIGM)	AIT	AN	1-4	11-5-0045
	113-603-3219	Maintain the AN/TYC-39A Common Equipment Facility (CEF)	AIT	AN	1-4	11-5-0045
SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG FREQ	DRILL ARTEP NO AND TASKS
	113-603-3220	Maintain the AN/TYC-39A Central Processor Group (CPG)	AIT	AN	1-4	11-5-0045
	113-603-3221	Maintain the TT-768 AN/TYC-39A Teleprinter, High Speed	AIT	AN	1-4	11-5-0045
	113-603-3222	Maintain the AN/TYC-39A Disk Drive Unit, AN/UYH-18	AIT	AN	1-4	11-1-0045
	113-603-3223	Maintain the AN/TYC-39A Video Display Unit, IP-1548/G	AIT	AN	1-4	11-1-0045
	113-603-3224	Maintain the AN/TYC-39A Control and Alarm Panel (CAP)	AIT	AN	1-4	11-1-0045
	113-603-3225	Maintain the AN/TYC-39A Environmental Control Unit (ECU)	AIT	AN	1-4	11-1-0045
	113-603-3226	Maintain the AN/TYC-39A Storage Device Facility (SDF)	AIT	AN	1-4	11-1-0045
	113-603-3227	Perform PMCS on the AN/TYC-39A System	AIT	AN	1-4	11-1-0045
2. AN/TYQ-30/	113-603-3201	Maintain the AN/TYQ-30/	AIT	AN	1-4	11-1-0004

31(V)		31(V) Power Group				
	113-603-3203	Maintain the AN/TYQ-30/ 31(V) Communications System Control Group	AIT	AN	1-4	11-1-0104
	113-603-3205	Maintain the AN/TYQ-30/ 31(V) COMSEC Group	AIT	AN	1-4	11-2-0104
	113-603-3207	Maintain the AN/TYQ-30/ 31(V) Central Processor	AIT	AN	1-4	11-6-0004
	113-603-3208	Maintain the AN/TYQ-30/ 31(V) Dot Matrix Printer	AIT	AN	1-4	11-1-0104
	113-603-3211	Maintain the AN/TYQ-30/ 31(V) Work Station	AIT	AN	1-4	11-2-0104
	113-603-3213	Perform PMCS on the AN/TYQ-30/31(V) System	AIT	AN	1-4	11-1-0004

SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG FREQ	DRILL ARTEP NO AND TASKS
3. AN/UYK-100	113-625-3086	Maintain the AN/UYK-100 CA-62/G Expansion Group Computer	AIT	AN	1-4	11-2-0104
	113-625-3087	Maintain the AN/UYK-100 CP-2199/G Computer Set/Main Computer Unit (MCU)	AIT	AN	1-4	11-1-0004
	113-625-3088	Maintain the AN/UYK-100 CA-61/G Display Unit/ External Monitor Unit (EMU)	AIT	AN	1-4	11-1-0045
	113-625-3089	Maintain the AN/UYK-100 PP-8378/G Power Supply/ Power Distribution Unit (PDU)	AIT	AN	1-4	11-1-0045
	113-625-3090	Perform Preventive Maintenance Checks and Services (PMCS) on the AN/UYK-100 Computer System	AIT	AN	1-4	11-1-0045
4. AN/TSQ-158(V)1	101-525-1139	Maintain a Non-Automated Prescribed Load List (PLL)	UNIT	AN	1-4	11-5-0045
	113-630-1005	Install the AN/TSQ-158(V)1 System	UNIT	AN	1-4	11-1-0045
	113-630-3008	Maintain the AN/UYK-44(V) Data Processing Set (DPS)	AIT	AN	1-4	11-1-0045
	113-630-3009	Maintain the AN/UYK-7(V) Computer Set	AIT	AN	1-4	11-1-0045

	113-630-3010	Maintain the AN/USH-26(V) Cartridge Magnetic Tape Unit (CMTU)	AIT	AN	1-4	11-1-0045
	113-630-3011	Perform Preventive Maintenance Checks and Services (PMCS) on the AN/TSQ-158(V)1 System	AIT	AN	1-4	11-1-0045
	113-630-3012	Maintain the OJ-487/ TSQ-129 Display Control Console (DCC)	AIT	AN	1-4	11-1-0045
	113-630-3013	Maintain the RT-1572/TSQ-158(V)1 Enhanced Command Response Unit (ECRU)	AIT	AN	1-4	11-1-0045

SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	DRILL ARTEP NO AND TASKS
	113-630-3014	Maintain the AN/TSQ-158(V)1 Net Control Station (NCS) System	AIT	AN	1-4	11-1-0045
	113-630-5001	Initialize the AN/TSQ-158(V)1 System	AIT	AN	1-4	11-5-0045

PART TWO. CRITICAL TASKS

DUTY POSITION TASKS — SKILL LEVEL 3 MOS 74G

SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	DRILL ARTEP NO AND TASKS
5. Advanced Operations	113-580-3061	Coordinate Calibration Support	BNCOC	AN	3-4	TBD
	113-603-3214	Maintain Systems Interconnectivity	BNCOC	AN	3-4	TBD
	113-603-6007	Inventory COMSEC Keying Material	BNCOC	AN	3-4	TBD
	113-603-6008	Develop Message Switch Network Interconnectivity Plan	BNCOC	AN	3-4	TBD

PART TWO. CRITICAL TASKS

DUTY POSITION TASKS — SKILL LEVEL 4 MOS 74G

SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	DRILL ARTEP NO AND TASKS
6. Supervision Tasks	113-573-0001	Check Signal Security (SIGSEC) Procedures	ANCOC	AN	3-4	TBD

	113-573-1002	Evaluate Physical Security of Facilities	ANCOC	AN	3-4	TBD
	113-623-7156	Inspect Site Maintenance Program	ANCOC	AN	3-4	TBD
7. Performance Tasks	113-573-0006	Prepare Emergency Plan	ANCOC	AN	4	TBD
	113-580-6009	Prepare a Continuity of Operations Plan (COOP) for an Information Processing Facility (IPF)	UNIT	AN	4	TBD
	113-580-7084	Select a Site for a Tactical Automated Information System (AIS)	ANCOC	AN	4	TBD
SUBJECT AREA	TASK NO	TITLE	TRAINING LOCATION	SUST TNG FREQ	SUST TNG SL	DRILL ARTEP NO AND TASKS
	113-580-7086	Develop an Accreditation Plan for an Automated Information System (AIS)	UNIT	AN	4	TBD
	113-583-7092	Design a Data Communications System for an Automated Information System (AIS)	ANCOC	AN	4	TBD
	113-598-7042	Revise Standing Operating Procedures (SOP)	UNIT	AN	4	TBD
	113-611-5013	Identify Manpower and Materiel Requirements to Accomplish Mission	UNIT	AN	4	TBD
	113-611-5014	Prepare the Signal Annex to the Operations Order (OPORD)	UNIT	AN	4	TBD

CHAPTER 3

MOS SKILL LEVEL TASKS

Subject Area 1. AN/TYC-39A

113-603-1048
INSTALL THE AN/TYC-39A CENTRAL MESSAGE SWITCHING AUTOMATIC SYSTEM

CONDITIONS

Given a truck mounted AN/TYC-39A, electrical power plant AN/MJQ-10 or equivalent, master power distribution unit (MPDU), J-1077 junction boxes, and TM 11-5805-790-12-6.

STANDARDS

The standards are met when all power cables are connected from the generator through the MPDU to the message switch, all required subscriber signal cables are connected, and the required telephones are installed.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Install shelters.	P	F
2. Ground installation.	P	F
3. Ground shelter.	P	F
4. Perform initial preparation.	P	F
5. Connect external power.	P	F
6. Connect signal cables.	P	F
7. Prepare shelter.	P	F
8. Install telephones.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-6	None

113-603-2198
INITIALIZE THE AN/TYC-39A CENTRAL MESSAGE SWITCHING AUTOMATIC SYSTEM

CONDITIONS

Given an installed AN/TYC-39A, TM 11-5805-790-12-1, TM 11-5805-790-12-6, and NAM-24A/TSEC.

STANDARDS

The standards are met when the message switch is on line and all assigned subscriber channels are in service.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
NOTE: Refer to TM 11-5805-790-12-6 for performance measures (PMs) 1 and 2.		
1. Perform message switch preparation.	P	F
2. Install telephones.	P	F
NOTE: Refer to TM 11-5805-790-12-1 for Pms 3 through 6.		
3. Perform system shutdown checks.	P	F
4. Perform start-up procedure.	P	F
5. Perform equalizing charge procedure.	P	F
6. Perform processor start-up.	P	F
NOTE: Refer to TM 11-5805-790-12-6 for Pms 7 and 8.		
7. Populate card nests.	P	F
8. Strap all required circuit cards.	P	F
NOTE: Refer to NAM-24A/TSEC for PM 9.		
9. Initialize communications security (COMSEC) equipment.	P	F
NOTE: Refer to TM 11-5805-790-12-6 for PM 10.		
10. Put channels in service.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	TM 11-5805-790-12-3
TM 11-5805-790-12-6	TM 11-5805-790-12-5
NAM-24A/TSEC	TM 11-5805-790-12-7

113-603-3215
MAINTAIN THE AN/TYC-39A POWER GROUP (PG)

CONDITIONS

Given an AN/TYC-39A with a faulty PG, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, TM 11-5805-790-12-1, TM 11-5805-790-12-7, TM 11-5805-790-12-8, and TM 11-5805-790-34-3.

STANDARDS

The standards are met when a successful power group initialization is completed.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: At any time while performing the power initialization you observe a fault indication, stop and go to PM 14.

Performance Measures	Results	
1. Ensure shelter is in shutdown condition.	P	F

NOTE: Refer to TM 11-5805-790-12-1 for PMs 2 through 12.

2. Turn on external AC prime power source.	P	F
3. Ensure EMERGENCY OFF switch is in the ON position.	P	F
4. Check for proper AC power.	P	F
5. Turn on main power and main lights.	P	F
6. Turn on regulator charger.	P	F
7. Turn on battery power.	P	F
8. Check BATTERY EXHAUST fault indicator.	P	F
9. Turn on DC power.	P	F
10. Turn on DC/DC converter units.	P	F
11. Turn on power processors.	P	F
12. Check DC current meter readings.	P	F

NOTE: Refer to TM 11-5805-790-12-8 for PMs 14 and 15. If wiring diagrams are needed, refer to TM 11-5805-790-34-3.

13. Select the correct decision block from the power initialization fault isolation flowchart sheet (1 of 29).	P	F
14. Follow the correct fault isolation flowchart procedure.	P	F

NOTE: Refer to TM 11-5805-790-12-7 for PMs 15 through 20. If no adjustments are required, go to PM 18.

15. Check for proper voltage.	P	F
16. Adjust to proper voltage level.	P	F
17. Remove faulty lowest replaceable unit (LRU).	P	F
18. Replace faulty LRU.	P	F
19. Perform required adjustments.	P	F
20. Repeat PMs 2 through 12 to ensure proper operation. If no fault is found, go to PM 21.	P	F
21. Resume operations. (Refer to TM 11-5805-790-12-1.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
TM 11-5805-790-34-3	FM 11-63

113-603-3216
MAINTAIN THE AN/TYC-39A COMMUNICATIONS EQUIPMENT SUPPORT GROUP (CESG)

CONDITIONS

Given an AN/TYC-39A with a faulty CESG, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, oscilloscope OS-261C or equivalent, printed circuit card (PCC) extender, PCC extractor, wire wrap tool kit, government supplies equipment (GSE) supplementary tool kit-IL, patch cords SM-A-838684-30 and SM-A-838684-50, TM 11-5805-790-12-1, TM 11-5805-790-12-3, TM 11-5805-790-12-4, TM 11-5805-790-12-5, TM 11-5805-790-12-6, TM 11-5805-790-12-7, TM 11-5805-790-12-8, TM 11-5805-790-34-3, and TM 11-5805-790-34-4.

STANDARDS

The standards are met when all assigned channels are in service with no channel alarms.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1. Perform power initialization. (Refer to TM 11-5805-790-12-1.)	P	F
2. Perform normal processor start-up.	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct isolation flow line.	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-3	FM 11-61
TM 11-5805-790-12-4	FM 11-62
TM 11-5805-790-12-5	FM 11-63
TM 11-5805-790-12-6	FM 11-72
TM 11-5805-790-12-7	TM 11-5805-790-12-2
TM 11-5805-790-12-8	TM 11-5805-790-12-9
TM 11-5805-790-34-3	TM 11-5805-790-34-1
TM 11-5805-790-34-4	TM 11-5805-790-34-2-1
	TM 11-5805-790-34-2-2
	TM 11-5805-790-34-2-3

113-603-3217
MAINTAIN THE AN/TYC-39A COMMUNICATIONS INTERFACE GROUP (CIG)

CONDITIONS
Given an AN/TYC-39A with a faulty CIG, tool kit TK-105 or equivalent, wrist strap, wire wrap tool kit, GSE supplementary tool kit-IL, TM 11-5805-790-12-1, TM 11-5805-790-12-5, TM 11-5805-790-12-7, TM 11-5805-790-12-8, TM 11-5805-790-12-9, TM 11-5805-790-34-3, and TM 11-5805-790-34-4.

STANDARDS
The standards are met when both central processors pass the built-in test equipment (BITE) diagnostics with no faults.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform system power initialization.	P	F
2. Perform off-line processor start-up. (Refer to TM 11-5805-790-12-1.)	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-5	FM 11-61
TM 11-5805-790-12-7	FM 11-62
TM 11-5805-790-12-8	FM 11-63
TM 11-5805-790-12-9	FM 11-72
TM 11-5805-790-34-3	TM 11-5805-790-12-2
TM 11-5805-790-34-4	TM 11-5805-790-12-3
	TM 11-5805-790-12-4
	TM 11-5805-790-12-6
	TM 11-5805-790-34-1
	TM 11-5805-790-34-2-1
	TM 11-5805-790-34-2-2
	TM 11-5805-790-34-2-3

113-603-3218
MAINTAIN THE AN/TYC-39A TIME DIVISION INTERFACE GROUP MODIFIED (TDIGM)

CONDITIONS

Given an AN/TYC-39A with a faulty TDIGM, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, oscilloscope OS-261C or equivalent, PCC extender, PCC extractor, wire wrap tool kit, wrist strap, GSE supplementary tool kit-IL, patch cords, TM 11-5805-790-12-1, TM 11-5805-790-12-3, TM 11-5805-790-12-5, TM 11-5805-790-12-6, TM 11-5805-790-12-7, TM 11-5805-790-12-8, TM 11-5805-790-34-1, TM 11-5805-790-34-2-1, TM 11-5805-790-34-2-2, TM 11-5805-790-34-2-3, TM 11-5805-790-34-3, and TM 11-5805-790-34-4.

STANDARDS

The standards are met when the AN/TYC-39A TDIGM passes the diagnostic time division interface (DTDI) program with no faults.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1. Check strapping conditions and perform TDIGM nest initialization. (Refer to TM 11-5805-790-12-6.)	P	F
2. Configure channels for time division.	P	F
3. Identify the symptom.	P	F

NOTE: Start with the system fault isolation flow chart. (Refer to TM 11-5805-790-12-8.)

4. Load and run the DTDI program.	P	F
5. Isolate faulty LRU.	P	F

NOTE: If string fault isolation is required, refer to TM 11-5805-790-34-1 through TM 11-5805-790-34-4.

6. Perform corrective action.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-3	FM 11-61
TM 11-5805-790-12-5	FM 11-62
TM 11-5805-790-12-6	FM 11-63
TM 11-5805-790-12-7	FM 11-72
TM 11-5805-790-12-8	TM 11-5805-790-12-2
TM 11-5805-790-34-1	TM 11-5805-790-12-4
TM 11-5805-790-34-2-1	TM 11-5805-790-12-9
TM 11-5805-790-34-2-2	
TM 11-5805-790-34-2-3	
TM 11-5805-790-34-3	
TM 11-5805-790-34-4	

113-603-3219
MAINTAIN THE AN/TYC-39A COMMON EQUIPMENT FACILITY (CEF)

CONDITIONS
Given an AN/TYC-39A with a faulty CEF, KYX-15A, HGX-83/TSEC, tool kit TK-105 or equivalent, GSE supplementary tool kit-IL, (C)KAO-193A RP, (C)NAM-24A/TSEC, TM 11-5805-790-12-6, TM 11-5805-790-12-7, TM 11-5805-790-12-8, (O)TM 11-5810-323-12, (O)TM 11-5810-327-10, and (O)TM 11-5810-331-13.

STANDARDS
The standards are met when the CEF passes all loopbacks and reconfiguration commands with no faults or equipment alarms.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
NOTE: Ensure emission security standards are met and all strapping options are correct.		
1. Perform system power initialization.	P	F
2. Perform normal processor start-up.	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
(C)KAO-193A RP	TM 11-5805-790-12-1
(C)NAM-24A/TSEC	
TM 11-5805-790-12-6	
TM 11-5805-790-12-7	
TM 11-5805-790-12-8	
(O)TM 11-5810-323-12	
(O)TM 11-5810-327-10	
(O)TM 11-5810-331-13	

113-603-3220
MAINTAIN THE AN/TYC-39A CENTRAL PROCESSOR GROUP (CPG)

CONDITIONS

Given an AN/TYC-39A with a faulty CPG, tool kit TK-105 or equivalent, wrist strap, wire wrap tool kit, GSE supplementary tool kit-IL, TM 11-5805-790-12-1, TM 11-5805-790-12-5, TM 11-5805-790-12-7, TM 11-5805-790-12-9, TM 11-5805-790-34-1, TM 11-5805-790-34-2-1, TM 11-5805-790-34-2-2, TM 11-5805-790-34-2-3, TM 11-5805-790-34-3, and TM 11-5805-790-34-4.

STANDARDS

The standards are met when both central processors pass BITE diagnostics with no faults.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1. Perform system power initialization.	P	F
2. Perform off-line processor start-up. (Refer to TM 11-5805-790-12-1.)	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-5	FM 11-61
TM 11-5805-790-12-7	FM 11-62
TM 11-5805-790-12-9	FM 11-63
TM 11-5805-790-34-1	FM 11-72
TM 11-5805-790-34-2-1	TM 11-5805-790-12-2
TM 11-5805-790-34-2-2	TM 11-5805-790-12-3
TM 11-5805-790-34-2-3	TM 11-5805-790-12-4
TM 11-5805-790-34-3	TM 11-5805-790-12-6
TM 11-5805-790-34-4	TM 11-5805-790-12-8

113-603-3221
MAINTAIN THE TT-768 AN/TYC-39A TELEPRINTER, HIGH SPEED

CONDITIONS

Given an AN/TYC-39A with a faulty TT-768 teleprinter, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, GSE supplementary tool
kit-IL, card extractor, TM 11-5805-790-12-2, TM 11-5805-790-12-7, TM 11-5805-790-12-8, and TM 11-5805-790-12-9.

STANDARDS

The standards are met when the printer passes the diagnostic line printer unit (DLPU) diagnostics with no faults.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1.Perform system power initialization.	P	F
2. Perform normal system start-up.	P	F
3. Perform printer self-test.	P	F
4. Identify the symptom.	P	F
5. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
6. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
7. Perform specified flowchart operations.	P	F
8. Perform corrective action.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-2	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
TM 11-5805-790-12-9	FM 11-63
	FM 11-72

113-603-3222
MAINTAIN THE AN/TYC-39A DISK DRIVE UNIT, AN/UYH-18

CONDITIONS
Given an AN/TYC-39A with a faulty AN/UYH-18 disk drive unit, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, PLD-B, GSE supplementary tool kit-IL, card extractor, TM 11-5805-790-12-1, TM 11-5805-790-12-7, and TM 11-5805-790-12-8.

STANDARDS
The standards are met when the disk drive unit diagnostics pass and the message switch completes normal processor start-up.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform system power initialization.	P	F
2. Perform normal processor start-up. (Refer to TM 11-5805-790-12-1.)	P	F
3. Identify the symptom.	P	F
5. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
6. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
7. Perform specified flowchart operations.	P	F
8. Perform corrective action.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
	FM 11-63
	FM 11-72
	TM 11-5805-790-12-9

113-603-3223
MAINTAIN THE AN/TYC-39A VIDEO DISPLAY UNIT, IP-1548/G

CONDITIONS

Given an AN/TYC-39A with a faulty video display terminal (VDT), multimeter AN/PSM-45 or equivalent, oscilloscope OS-261C or equivalent, tool kit TK-105 or equivalent, GSE supplementary tool kit-IL, test pattern generator SG-1223/T, card extractor, TM 11-5805-790-12-1, TM 11-5805-790-12-7, TM 11-5805-790-12-8, and TM 11-5895-857-34.

STANDARDS

The standards are met when the VDT displays a prompt cursor and accepts input and output data.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1. Power on the VDT.	P	F

NOTE: Refer to TM 11-5805-790-12-1 for PMs 2 and 3. At any time while performing test/operate you observe a fault indication, stop and go to PM 3.

2. Check for the VDT ready indicator and cursor.	P	F
3. Troubleshoot using the correct fault isolation chart.	P	F

NOTE: Refer to TM 11-5895-857-34 for PMs 4 through 6. To run VDT diagnostics, refer to TM 11-5805-790-12-8.

4. Isolate the probable cause.	P	F
5. Perform required adjustments.	P	F

NOTES: If no adjustments are required, go to PM 10.

If LRU replacement is not required, go to PM 10. Refer to TM 11-5805-790-12-7 for PMs 7 and 8.

6. Remove faulty LRU.	P	F
7. Replace faulty LRU.	P	F
8. Perform required adjustments. (Refer to TM 11-5895-857-34.)	P	F
9. Repeat PMs 2 and 3. If no fault is found, go to PM 10.	P	F
10. Resume operations. (Refer to TM 11-5805-790-12-1.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
TM 11-5895-857-34	FM 11-63
	FM 11-72

113-603-3224
MAINTAIN THE AN/TYC-39A CONTROL AND ALARM PANEL (CAP)

CONDITIONS
Given an AN/TYC-39A with a faulty CAP, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, GSE supplementary tool kit-IL, card extractor, PLD-A, diagnostic control and alarm panel (DCAP) program, TM 11-5805-790-12-1, TM 11-5805-790-12-7, and TM 11-5805-790-12-8.

STANDARDS
The standards are met when the CAP passes the DCAP program with no faults.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform system power initialization.	P	F
2. Perform normal processor start-up. (Refer to TM 11-5805-790-12-1.)	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
	FM 11-63
	FM 11-72
	TM 11-5805-790-12-9

113-603-3225
MAINTAIN THE AN/TYC-39A ENVIRONMENTAL CONTROL UNIT (ECU)

CONDITIONS
Given an AN/TYC-39A with a faulty ECU, tool kit TK-105 or equivalent, and TM 11-5805-790-12-1.

STANDARDS
The standards are met when the ECU powers-up and maintains 65°F to 80°F.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results
1. Set controls to desired environmental conditions.	P F
2. Apply power to the compressor.	P F
3. Identify the symptom.	P F
4. Perform corrective action.	P F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72

113-603-3226
MAINTAIN THE AN/TYC-39A STORAGE DEVICE FACILITY (SDF)

CONDITIONS
Given an AN/TYC-39A with a faulty SDF, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, GSE supplementary tool kit-IL, card extractor, PLD-B, TM 11-5805-790-12-1, TM 11-5805-790-12-7, TM 11-5805-790-12-8, and TM 11-5895-1468-34.

STANDARDS
The standards are met when the SDF passes the diagnostics and the message switch completes normal processor start-up.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform system power initialization.	P	F
2. Perform normal processor start-up. (Refer to TM 11-5805-790-12-1.)	P	F
3. Identify the symptom.	P	F
4. Perform system fault isolation procedures. (Refer to TM 11-5805-790-12-8.)	P	F
5. Follow the correct fault isolation flow line. (Refer to TM 11-5805-790-12-8.)	P	F
6. Perform specified flowchart operations.	P	F
7. Perform corrective action.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5805-790-12-1	FM 11-60
TM 11-5805-790-12-7	FM 11-61
TM 11-5805-790-12-8	FM 11-62
TM 11-5895-1468-34	FM 11-63
	FM 11-72
	TM 11-5805-790-12-9

113-603-3227
PERFORM PMCS ON THE AN/TYC-39A SYSTEM

CONDITIONS
Given an AN/TYC-39A needing PMCS, tool kit TK-105 or equivalent, TM 9-4120-367-14, TM 11-5805-790-12-6, TM 11-5805-790-12-7, TM 11-5815-602-10-1, TM 11-7025-203-12, and (C)NAM-24A/TSEC.

STANDARDS
The standards are met when all PMCS are completed and equipment is identified as ready/available or not ready/available.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measure	Results	
Perform PMCS at the prescribed interval.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 9-4120-367-14	None
TM 11-5805-790-12-6	
TM 11-5805-790-12-7	
TM 11-5815-602-10-1	
TM 11-7025-203-12	
(C)NAM-24A/TSEC	

Subject Area 2. AN/TYQ-30/31(V)

113-603-3201
MAINTAIN THE AN/TYQ-30/31(V) POWER GROUP

CONDITIONS
Given an AN/TYQ-30/31(V) with a faulty PG, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, TM 11-5895-1392-12 and TM 11-5895-1392-34 for AN/TYQ-30(V), and TM 11-5895-1393-12 and TM 11-5895-1393-34 for AN/TYQ-31(V).

STANDARDS
The standards are met when a successful power group initialization is completed.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures **Results**

NOTES: When a fault is encountered during the power initialization, stop and go to PM 5. Observe all warnings and cautions.

Refer to TM 11-5895-1392-12 or TM 11-5895-1393-12 for PMs 1 through 5.

1.	Perform preliminary checks.	P	F
2.	Apply prime power to the automatic data processor (ADP) shelter through the power entry panel.	P	F
3.	Set up the shelter ECU.	P	F
4.	Turn on the ADP uninterruptible power source.	P	F
5.	Turn on the ADP shelter power distribution unit (PDU).	P	F

NOTE: Refer to TM 11-5895-1392-12 or TM 11-5895-1393-12 for operator troubleshooting and TM 11-5895-1392-34 or TM 11-5895-1393-34 for higher echelon troubleshooting.

6.	Select the appropriate trouble-shooting table in the applicable TM.	P	F
7.	Perform all steps listed in each procedure.	P	F
8.	Remove faulty LRU.	P	F
9.	Replace faulty LRU.	P	F
10.	Repeat PMs 2 through 6 to ensure proper operation.	P	F
11.	Resume operations. (Refer to applicable TM.)	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	**Related**
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1392-34	FM 11-61
TM 11-5895-1393-12	FM 11-62
TM 11-5895-1393-34	FM 11-63

113-603-3203
MAINTAIN THE AN/TYQ-30/31(V) COMMUNICATIONS SYSTEM CONTROL GROUP

CONDITIONS

Given an AN/TYQ-30/31(V) with a faulty communications system control group, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, TM 11-5895-1392-12, TM 11-5895-1392-34, TM 11-5895-1393-12, and TM 11-5895-1393-34.

STANDARDS

The standards are met when required communications are established.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
NOTE: Refer to TM 11-5895-1392-12 and TM 11-5895-1393-12 for PMs 1 through 3.		
1. Ensure shelter is in the shut-down condition.	P	F
2. Perform preliminary checks.	P	F
3. Power up equipment.	P	F
NOTE: Refer to TM 11-5895-1392-12 or TM 11-5895-1393-12 for operator maintenance and TM 11-5895-1392-34 or TM 11-5895-1393-34 for higher echelon maintenance.		
4. Run parse possum diagnostics.	P	F
5. Run off-line diagnostics.	P	F
6. Follow troubleshooting tables. (Refer to applicable TM.)	P	F
7. Select the correct symptom.	P	F
8. Identify faulty LRU.	P	F
9. Remove faulty LRU.	P	F
10. Replace faulty LRU.	P	F
11. Repeat PMs 1 through 3. If no fault is found, go to PM 12.	P	F
12. Resume operations.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1392-34	FM 11-61
TM 11-5895-1393-12	FM 11-62
TM 11-5895-1393-34	FM 11-63
	FM 11-72
	TB 43-0124
	TM 11-5805-705-12

113-603-3205
MAINTAIN THE AN/TYQ-30/31(V) COMSEC GROUP

CONDITIONS

Given an AN/TYQ-30/31(V) with a faulty COMSEC group, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, TM 11-5895-1392-12 for AN/TYQ-30(V), and TM 11-5895-1393-12 for AN/TYQ-31(V).

STANDARDS

The standards are met when required communications are established.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform preliminary checks.	P	F
2. Power up equipment.	P	F
3. Run off-line diagnostics.	P	F
4. Identify faulty LRU.	P	F
5. Remove faulty LRU.	P	F
6. Replace faulty LRU.	P	F
7. Repeat PMs 1 and 2. If no faults are found, go to PM 8.	P	F
8. Resume operations.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1393-12	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72

113-603-3207
MAINTAIN THE AN/TYQ-30/31(V) CENTRAL PROCESSOR

CONDITIONS

Given an AN/TYQ-30/31(V) with a faulty central processor (CP), multimeter AN/PSM-45 or equivalent, tool kit TK-17 or equivalent, TM 11-5895-1392-12 and TM 11-5895-1392-34 for AN/TYQ-30(V), and TM 11-5895-1393-12 and TM 11-5895-1393-34 for AN/TYQ-31(V).

STANDARDS

The standards are met when the AN/TYQ-30/31(V) is capable of passing traffic on all channels.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Ensure shelter is in the shut-down condition.	P	F
2. Perform preliminary checks.	P	F
3. Power up equipment.	P	F

NOTE: For higher echelon maintenance, refer to TM 11-5895-1392-34 or TM 11-5895-1393-34.

4. Follow troubleshooting Table 4-26.6.	P	F
5. Select the correct symptom number.	P	F
6. Run parse possum diagnostics.	P	F

NOTE: Refer to troubleshooting Table 4-2.

7. Remove faulty LRU.	P	F
8. Replace faulty LRU	P	F
9. Repeat PMs 1 through 3. If no fault is found, go to PM 10.	P	F
10. Resume operations. (Refer to applicable TM.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1392-34	FM 11-61
TM 11-5895-1393-12	FM 11-62
TM 11-5895-1393-34	FM 11-63
	FM 11-72

113-603-3208
MAINTAIN THE AN/TYQ-30/31(V) DOT MATRIX PRINTER

CONDITIONS
Given an AN/TYQ-30/31(V) with a faulty dot matrix printer, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, TM 11-5895-1392-12 and TM 11-5895-1392-34 for AN/TYQ-30(V), and TM 11-5895-1393-12 and TM 11-5895-1393-34 for AN/TYQ-31(V).

STANDARDS
The standards are met when a successful self-test is completed.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Run self-test.	P	F

NOTE: For higher level maintenance, refer to TM 11-5895-1392-34 or TM 11-5895-1393-34.

2. Follow troubleshooting table in applicable TM.	P	F
3. Select the correct symptom number.	P	F
4. Run off-line printer diagnostics. (Refer to applicable TM.)	P	F
5. Follow troubleshooting table in applicable TM.	P	F

NOTE: If no adjustment is required, go to PM 7.

6. Perform required adjustments.	P	F

NOTE: If LRU replacement is not required, go to PM 10.

7. Remove faulty LRU.	P	F
8. Replace faulty LRU.	P	F
9. Perform required adjustments.	P	F
10. Repeat PM 2. If no fault is found, go to PM 11.	P	F
11. Resume operations. (Refer to applicable TM.)	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1392-34	FM 11-61
TM 11-5895-1393-12	FM 11-62
TM 11-5895-1393-34	FM 11-63
	FM 11-72

113-603-3211
MAINTAIN THE AN/TYQ-30/31(V) WORK STATION

CONDITIONS
Given an AN/TYQ-30/31(V) with a faulty work station, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, oscilloscope OS-261C or equivalent, TM 11-5895-1392-12 and TM 11-5895-1392-34 for AN/TYQ-30(V), and TM 11-5895-1393-12 and TM 11-5895-1393-34 for AN/TYQ-31(V).

STANDARDS
The standards are met when the work station completes a successful countdown.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
NOTE: At any time while performing test/operate you observe a fault indication, stop and go to PM 5.		
1. Ensure shelter is in the shut-down condition.	P	F
2. Perform preliminary checks.	P	F
3. Power up equipment.	P	F
NOTE: For higher level maintenance, refer to TM 11-5895-1392-34 or TM 11-5895-1393-34.		
4. Follow the troubleshooting tables for the master work station and the local work station. (Refer to applicable TM.)	P	F
5. Select the correct symptom number.	P	F
6. Check Table 5-1 for fault condition or failed diagnostic results in applicable TM.	P	F
NOTE: If no adjustments are required, go to PM 8.		
7. Perform required adjustments.	P	F
NOTE: If LRU replacement is not required, go to PM 12.		
8. Remove faulty LRU.	P	F
9. Replace faulty LRU.	P	F
10. Perform required adjustments.	P	F
11. Run off-line work station diagnostics.	P	F
12. Resume operations. (Refer to applicable TM.)	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	FM 11-60
TM 11-5895-1392-34	FM 11-61
TM 11-5895-1393-12	FM 11-62
TM 11-5895-1393-34	FM 11-63
	FM 11-72

113-603-3213
PERFORM PMCS ON THE AN/TYQ-30/31(V) SYSTEM

CONDITIONS
Given an AN/TYQ-30/31(V) needing PMCS, tool kit TK-105 or equivalent, TM 11-5895-1392-12, and TM 11-5895-1393-12.

STANDARDS
The standards are met when all PMCS are completed and equipment is identified as ready/available or not ready/available.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measure	Results	
Perform PMCS at the prescribed interval.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1392-12	TM 5-4120-384-14
TM 11-5895-1393-12	TM 11-5815-615-10

Subject Area 3. AN/UYK-100

113-625-3086
MAINTAIN THE AN/UYK-100 CA-62/G EXPANSION GROUP COMPUTER

CONDITIONS
Given an AN/UYK-100 with a faulty expansion box unit (EBU), wrist strap, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, and TM 11-5895-1544-13&P.

STANDARDS
The standards are met when the EBU is brought to a fully operational state and on-line.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
NOTE: When a fault is encountered during power initialization, stop and go to PM 5.		
1. Perform preliminary checks.	P	F
2. Perform preliminary starting procedures.	P	F
3. Perform initial adjustments.	P	F
4. Perform power initialization.	P	F

CAUTION

Circuit cards are sensitive to electrostatic discharge (ESD). To prevent damage to circuit cards, ensure that an ESD wrist strap is worn and properly connected.

NOTE: If no fault is found, go to PM 9.		
5. Perform direct support trouble-shooting procedures.	P	F
6. Perform fault isolation procedures.	P	F
7. Perform direct support maintenance procedures for the EBU		
NOTE: If EBU access is necessary, refer to TM before proceeding.		
8. Repeat PMs 2 through 5. If no fault is found, go to PM 9.	P	F
9. Resume operations.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1544-13&P	FM 11-60
	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72
	TB 11-5895-1544-10-1
	TB 11-5895-1544-10-2

113-625-3087
MAINTAIN THE AN/UYK-100 CP-2199/G COMPUTER SET/MAIN COMPUTER UNIT (MCU)

CONDITIONS

Given an AN/UYK-100 with a faulty MCU, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, and TM 11-5895-1544-13&P.

STANDARDS

The standards are met when the MCU is brought to a fully operational state and on-line.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
NOTE: When a fault is encountered during power initialization, stop and go to PM 6.		
1. Perform preliminary checks.	P	F
2. Perform preliminary starting procedures.	P	F
3. Perform initial adjustments.	P	F
4. Perform power initialization.	P	F
5. Perform direct support trouble-shooting procedures.	P	F
6. Perform fault isolation procedures.	P	F
7. Perform direct support maintenance procedures for the MCU		
NOTE: If MCU access is necessary, refer to the TM before proceeding.		
8. Repeat PMs 2 through 5. If no fault is found, go to PM 9.	P	F
9. Resume operations.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1544-13&P	FM 11-60
	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72
	TB 11-5895-1544-10-1
	TB 11-5895-1544-10-2

113-625-3088
MAINTAIN THE AN/UYK-100 CA-61/G DISPLAY UNIT/EXTERNAL MONITOR UNIT (EMU)

CONDITIONS

Given an AN/UYK-100 with a faulty EMU, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, and TM 11-5895-1544-13&P.

STANDARDS

The standards are met when the EMU is brought to a fully operational state and on-line.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
NOTE: When a fault is encountered during power initialization, stop and proceed to PM 7.		
1. Perform preliminary checks.	P	F
2. Perform preliminary starting procedures.	P	F
3. Perform initial adjustments.	P	F
4. Perform power initialization.	P	F
5. Perform direct support trouble-shooting procedures.	P	F
6. Perform fault isolation procedures.	P	F
7. Perform direct support maintenance procedures for the EMU.	P	F
8. Repeat PMs 2 through 5. If no fault is found, go to PM 9.	P	F
9. Resume operations.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1544-13&P	FM 11-60
	FM 11-61
	FM 11-62
	TB 11-5895-1544-10-1
	TB 11-5895-1544-10-2

113-625-3089
MAINTAIN THE AN/UYK-100 PP-8378/G
POWER SUPPLY/POWER DISTRIBUTION UNIT (PDU)

CONDITIONS

Given an AN/UYK-100 with a faulty PDU, multimeter AN/PSM-45 or equivalent, tool kit TK-105 or equivalent, and TM 11-5895-1544-13&P.

STANDARDS

The standards are met when a successful PDU systems initialization is completed.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
NOTE: When a fault is encountered during power initialization, stop and go to PM 5.		
1. Perform preliminary checks.	P	F
2. Perform preliminary starting procedures.	P	F
3. Perform power initialization.	P	F
NOTE: If the power light on the power strip/surge protector is lit, go to PM 8.		
4. Perform direct support trouble-shooting procedures.	P	F
5. Perform fault isolation procedures.	P	F
6. Perform direct support maintenance procedures for the PDU		
7. Repeat PMs 2 through 4. If no fault is found, go to PM 8.	P	F
8. Resume operations.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1544-13&P	FM 11-60
	FM 11-61
	FM 11-62
	FM 11-63

113-625-3090
PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON THE AN/UYK-100 COMPUTER SYSTEM

CONDITIONS
Given an AN/UYK-100 needing PMCS, tool kit TK-105 or equivalent, and TM 11-5895-1544-13&P.

STANDARDS
The standards are met when all required PMCS are completed and equipment is identified as ready/available or not ready/available.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measure	Results	
Perform PMCS at specified intervals.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5895-1544-13&P	TB 11-5895-1544-10-1
	TB 11-5895-1544-10-2
	TB 43-0118

Subject Area 4. AN/TSQ-158(V)1

101-525-1139
MAINTAIN A NON-AUTOMATED PRESCRIBED LOAD LIST (PLL)

CONDITIONS

Given a consolidated PLL, individual PLLs or an automated printout, a record of demands title insert file (DA Form 3318), DA Pam 710-2-1, DA Pam 710-2-2, and AR 25-400-2. You have to review and maintain a PLL for accuracy and accountability for repair parts.

STANDARDS

The standards are met when a PLL is verified for accuracy and maintained without losing accountability of the repair parts.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Refer to DA Pam 710-2-1 and DA Pam 710-2-2 for PMs 1 and 2. Refer to AR 25-400-2 for PMs 3 through 9.

Performance Measures	Results	
1. Maintain a PLL.	P	F
a. Record current on-hand balance.		
b. Record locations.		
c. Change on-hand balance to reflect receipts.		
d. Change on-hand balance to reflect turn-in.		
e. Change on-hand balance to reflect inventory adjustment.		
2. Prepare and process request for repair parts.	P	F
a. Determine the supply source for repair parts.		
b. Prepare the correct request form.		
c. Post the request to the correct supply forms.		
d. Send the request to the proper supply support activity (SSA).		
3. Maintain the document register.	P	F
a. Prepare the heading of the document register.		
b. Post the request to the document register.		
c. File the document register.		
4. Initiate follow-up and document modifier and cancellation requests.	P	F
a. Prepare follow-up documents.		
b. Prepare modifier requests.		
c. Prepare cancellation requests.		
d. Post the follow-up, modifier, and cancellation requests to the appropriate supply records.		
5. Maintain due-in status file.	P	F
a. Determine status and take the correct action.		
b. Post the status cards to the proper supply records.		
c. File the status cards in the due-in status file.		
d. Determine the disposition of the status cards upon completion of the supply requests.		
6. Perform reconciliation of due-in.	P	F
a. Compare the listing with the unit document register or repair parts suspense listing.		
b. Annotate the listing to reflect items still required, items to be canceled, and items that have been received.		
c. Make appropriate entries on the document register.		
d. Distribute and file correct copies of reconciliation.		
7. Receive repair parts.	P	F
a. Obtain receipts for repair parts.		
b. Post the receipt to the correct supply records.		
c. Determine the disposition of the status cards.		
d. Determine the disposition of the repair parts.		
8. Turn-in repair parts.	P	F
a. Determine the recover ability code for the repair part.		
b. Prepare a turn-in document.		
c. Post the turn-in to the correct supply records.		
d. Turn in the repair part to the SSA.		

9. Process PLL change listings. a. Annotate the listing to reflect the commander's decision on additions, deletions, and changes. b. Identify the action codes and post the correct supply records. c. Distribute and file correct copies of listings.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
AR 25-400-2	TM 38-L32-11
DA Pam 710-2-1	
DA Pam 710-2-2	

113-630-1005
INSTALL THE AN/TSQ-158(V)1 SYSTEM

CONDITIONS
Given net control station (NCS) AN/TSQ-l58(V)1 system, 30 kw generator set, three-man team, TM 11-5825-282-10, and TM 5-6115-465-12.

STANDARDS
The standards are met when the NCS AN/TSQ-l58(V)1 is powered on and the correct voltage readings of 120/208V, 60 Hz +5 percent appear on the power control panel.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Refer to TM 11-5825-282-10 for PMs 1 through 10 and PM 12.

Performance Measures	Results	
1. Position generator at a level site.	P	F
2. Drive generator ground rod.	P	F
3. Connect generator ground cables to ground rod.	P	F
4. Position NCS.	P	F
5. Drive NCS ground rod.	P	F
6. Connect NCS ground cables to ground rod.	P	F
7. Install ladder.	P	F
8. Install antennas.	P	F
9. Connect power cable to NCS from generator.	P	F
10. Roll up air conditioner canvas covers.	P	F
11. Turn generator on. (Refer to TM 5-6115-465-12.)	P	F
12. Turn NCS power on and check voltages.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5825-282-10	None
TM 5-6115-465-12	

113-630-3008
MAINTAIN THE AN/UYK-44(V) DATA PROCESSING SET (DPS)

CONDITIONS

Given an AN/TSQ-158(V)1 with a faulty AN/UYK-44(V) DPS, multimeter AN/PSM-45A or equivalent, tool kit TK-100 or equivalent, NAVSEA SE610-PV-MMO-010, and NAVSEA SE610-PV-MMM-010.

STANDARDS

The standards are met when the DPS successfully completes built-in-test (BIT).

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Refer to NAVSEA SE610-PV-MMO-010 for PMs 1 through 3; NAVSEA SE610-PV-MMO-010 and NAVSEA SE610-PV-MMM-010 for PMs 5 through 12. Observe all notes and cautions. If at any time WHILE PERFORMING test/operate you observe a fault indication, stop and go to PM 4.

Performance Measures	Results	
1. Set switches on the DPS to the initial setting.	P	F
2. Power on the DPS.	P	F
3. Perform BIT.	P	F
4. Check for error indication in display select register.	P	F
5. Select the correct fault symptom.	P	F
6. Perform the correct fault isolation procedures.	P	F
7. Determine probable cause.	P	F
8. Perform corrective action.	P	F

NOTE: If no adjustments are required, go to PM 11.

9. Check for proper voltage/signals.	P	F
10. Adjust voltage/signals as required.	P	F

NOTE: If LRU replacement is not required, go to PM 13.

11. Remove faulty LRU.	P	F
12. Replace faulty LRU.	P	F
13. Perform BIT.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
NAVSEA SE610-PV-MMO-010	FM 11-60
NAVSEA SE610-PV-MMM-010	FM 11-61 FM 11-62 FM 11-63 FM 11-72

113-630-3009
MAINTAIN THE AN/UYK-7(V) COMPUTER SET

CONDITIONS
Given an AN/TSQ-158(V)1 with a faulty AN/UYK-7(V) computer set, multimeter AN/PSM-45A or equivalent, oscilloscope AN/USM-488 or equivalent, tool kit TK-100 or equivalent, NAVSEA SE610-AW-MMA-010, NAVSEA SE610-AW-MMA-020, NAVSEA SE610-AW-MMA-030, and NAVSEA SE610-AW-MMA-040.

STANDARDS
The standards are met when the AN/UYK-7(V) is brought on-line with the NCS.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: If at any time while performing test/operate you observe a fault indication, stop and go to PM 3.]

Performance Measures	Results	
1. Power up the computer set. (Refer to NAVSEA SE610-AW-MMA-010.)	P	F
2. Check for error indications on the maintenance panel.	P	F
3. Perform computer set fault isolation procedures. (Refer to NAVSEA SE610-AW-MMA-020.)	P	F
4. Determine the possible malfunction or LRU.	P	F

NOTE: Refer to NAVSEA SE610-AW-MMA-020, NAVSEA SE610-AW-MMA-030, and NAVSEA SE610-AW-MMA-040 for PMs 5 through 7.

5. Perform corrective action.	P	F
6. Remove faulty LRU.	P	F
7. Replace faulty LRU.	P	F
8. Repeat PM 3. If no fault is found, go to PM 9.	P	F
9. Place computer set on-line with the NCS.	**P**	**F**

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
NAVSEA SE610-AW-MMA-010	FM 11-60
NAVSEA SE610-AW-MMA-020	FM 11-61
NAVSEA SE610-AW-MMA-030	FM 11-62
NAVSEA SE610-AW-MMA-040	FM 11-63
	FM 11-72

113-630-3010
MAINTAIN THE AN/USH-26(V) CARTRIDGE MAGNETIC TAPE UNIT (CMTU)

CONDITIONS

Given an AN/TSQ-158(V)1 with a faulty AN/USH-26(V) CMTU, real-time enhanced position location reporting system (EPLRS) program (RTEP) tape, multimeter AN/PSM-45A or equivalent, oscilloscope AN/USM-488 or equivalent, electronic counter AN/USM-459 or equivalent, tool kit TK-100 or equivalent, NAVSEA SE640-AF-MMO-010/USH-26(V), NAVSEA SE640-AF-MMO-020/USH-26(V), and NAVSEA SE640-AF-MMO-030/USH-26(V).

STANDARDS

The standards are met when the CMTU is on-line and responds to the computer.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Observe all cautions. If at any time while performing test/operate you observe a fault indication, stop and go to PM 3.

Performance Measures	Results	
1. Power on the CMTU.	P	F
2. Load RTEP tape, check for ready indicators.	P	F

NOTE: Refer to NAVSEA SE640-AF-MMO-010/USH-26(V), NAVSEA SE640-AF-MMO-020/USH-26(V), and NAVSEA SE640-AF-MMO-030/USH-26(V) for PMs 3 through 6.

3. Troubleshoot using the fault logic diagram.	P	F
4. Select the correct fault symptom.		P
5. Determine the probable cause.		P
6. Perform corrective action.		P

NOTE: If no adjustments are required, go to PM 9. Refer to NAVSEA SE640-AF-MMO-010/USH-26(V) for PMs 7 and 8.

7. Check for proper voltage/signals.	P	F
8. Adjust voltage/signals as required.	P	F

NOTE: Refer to NAVSEA SE640-AF-MMO-010/USH-26(V). If LRU replacement is not required, go to PM 11.

9. Remove faulty LRU.	P	F
10. Replace faulty LRU.	P	F
11. Repeat PMs 1 and 2. If no fault is found, place the CMTU on-line with the NCS.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
NAVSEA SE640-AF-MMO-010/ USH-26(V)	FM 11-60
NAVSEA SE640-AF-MMO-020/ USH-26(V)	FM 11-61
NAVSEA SE640-AF-MMO-030/ USH-26(V)	FM 11-62
	FM 11-63
	FM 11-72

113-630-3011
PERFORM PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) ON THE AN/TSQ-158(V)1 SYSTEM

CONDITIONS

Given an AN/TSQ-158(V)1 needing PMCS, tool kit TK-100 or equivalent, NAVSEA SE610-PV-MMM-010, NAVSEA SE610-AW-MMA-020, NAVSEA SE640-AF-MMO-010, TM 11-5815-602-24, TM 11-5820-890-10-1, TM 11-5825-272-23 and TM 9-4120-367-14 or TM 5-4120-384-14 or TM 5-4120-379-14, DA Pam 738-750, and DA Form 314.

STANDARDS

The standards are met when all PMCS are completed and equipment is identified as ready/available or not ready/available.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results
1. Perform PMCS at the prescribed interval.	P F
2. Complete all required maintenance forms.	P F
3. Schedule next PMCS on DA Form 314.	P F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
NAVSEA SE640-AF-MMO-010	None
NAVSEA SE610-AW-MMA-020	
NAVSEA SE610-PV-MMM-010	
TM 11-5815-602-24	
TM 11-5820-890-10-1	
TM 11-5825-272-23	
TM 9-4120-367-14 or	
TM 5-4120-384-14 or	
TM 5-4120-379-14	
DA Pam 738-750	

113-630-3012
MAINTAIN THE OJ-487/TSQ-129 DISPLAY CONTROL CONSOLE (DCC)

CONDITIONS

Given a faulty OJ-487/TSQ-129 DCC, tool kit TK-100, t00l kit TK-105, oscilloscope AN/USM-488, multimeter AN/PSM-45A, TM 11-5825-272-23, and TM 11-5825-282-10.

STANDARDS

The standards are met when the DCC checkout procedure is successfully completed.

TRAINING AND EVALUATION
Evaluation Guide

CAUTION

To prevent damage to the cathode ray tube (CRT), wait 15 seconds after turning MAIN POWER switch on or until the DCC's GO/NO-GO indicator blinks three times and buzzer sounds before turning on the 18KV/5KV HIGH VOLTAGE switch.

Performance Measures	Results	
1. Perform system power-up procedure, step #10. (Refer to TM 11-5825-282-10.)	P	F
2. Observe all lamps and indicators. If fault occurs, go to PM 5.	P	F
3. Verify three blinks of GO/NO-GO indicator and buzzer sounds prior to turning on 18KV/5KV HIGH VOLTAGE switch. If fault occurs, go to PM 5.	P	F
4. Observe DCC screen and verify RM STATUS is OK. If fault occurs, go to PM 5.	P	F

DANGER

600V, 5KV, and 18KV HIGH VOLTAGES exist within the DCC. Use extreme caution when measuring voltages and waveforms around or near the CRT.

5. Perform DCC checkout and fault isolation procedures. (Refer to TM 11-5825-272-23.)	P	F
6. Select the correct fault isolation procedure.	P	F
7. Check for proper voltages, adjust if necessary. Go to PM 11.	P	F
8. Check for proper waveforms, adjust if necessary. Go to PM 11.	P	F
9. Isolate to the LRU.	P	F

NOTE: If LRU replacement is not required, go to PM 15.

10. Perform corrective action. Go to PM 11 or PM 12, if applicable.	P	F
11. Perform required alignments/ adjustments. Go to PM 15. (Refer to TM 11-5825-272-23.)	P	F

DANGER

600V, 5KV, and 18KV HIGH VOLTAGES exist within the DCC. Allow at least 1 minute for the HIGH VOLTAGE to discharge before removing any components in the HIGH VOLTAGE section of the DCC.

NOTE: Before performing remove/ replace procedures, ensure the fault is not an alignment/adjustment problem.

12. Remove faulty LRU. (Refer to TM 11-5825-272-23.)	P	F
13. Replace faulty LRU.	P	F
14. Perform final alignment/adjustment procedures, if necessary. Go back to PM 11.	P	F
15. Verify the fault is fixed, perform DCC checkout procedure, if necessary.	P	F
16. Repeat PMs 2 through 5. If no other faults are found, go to PM 17.	P	F
17. Resume operations. (Refer to TM 11-5825-282-10.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5825-272-23	FM 11-60
TM 11-5825-282-10	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72

113-630-3013
MAINTAIN THE RT-1572/TSQ-158(V)1 ENHANCED COMMAND RESPONSE UNIT (ECRU)

CONDITIONS

Given a faulty RT-1572/TSQ-158(V)1 ECRU, tool kit TK-100, tool kit TK-105G, oscilloscope AN/USM-488, multimeter AN/PSM-45A, TM 11-5825-282-23, and TM 11-5825-282-10.

STANDARDS

The standards are met when the RT-1572/TSQ-158(V)1 ECRU is powered up to an operable status with no faults.

TRAINING AND EVALUATION

Evaluation Guide

Performance Measures	Results	
1. Perform system power-up procedure, step #13. (Refer to TM 11-5825-282-10.)	**P**	**F**
2. Observe all lamps and indicators. If fault occurs, go to PM 3.	**P**	**F**
3. Perform ECRU fault isolation procedures. (Refer to TM 11-5825-282-23.)	P	F
4. Select the correct fault isolation procedure.	P	F
5. Perform required diagnostic procedures. (Example: ECRU BIT, hardware fault monitor, maintenance loopback.)		
6. Check for proper voltages, adjust if necessary. Go to PM 10.	P	F
7. Check for proper waveforms, adjust if necessary. Go to PM 10.	P	F
8. Isolate to the LRU.	P	F
9. Perform corrective action. Go to PM 10 or PM 11, if applicable.	P	F

NOTE: Before performing remove/replace procedures, ensure the fault is not an alignment/adjustment problem.

10. Perform required alignments/adjustments. Go to PM 14. (Refer to TM 11-5825-282-23.)	P	F

NOTE: If LRU replacement is not required, go to PM 14.

11. Remove faulty LRU. (Refer to TM 11-5825-282-23.)	P	F
12. Replace fault.	P	F
13. Perform final alignment/adjustment procedures. If necessary, go back to PM 10.	P	F
14. Verify the fault is fixed, perform required after maintenance checks.	P	F
15. Repeat PMs 1 and 2. If no other faults are found, go to PM 16.	P	F
16. Resume operations. (Refer to TM 11-5825-282-10.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

P F

REFERENCES

Required	Related
TM 11-5825-282-10	FM 11-60
TM 11-5825-282-23	FM 11-61
	FM 11-62
	FM 11-63
	FM 11-72

113-630-3014
MAINTAIN THE AN/TSQ-158(V)1 NET CONTROL STATION (NCS) SYSTEM

CONDITIONS

Given a faulty AN/TSQ-158(V)1 NCS, tool kit TK-100, tool kit TK-105G, oscilloscope AN/USM-488, multimeter AN/PSM-45A, electronic counter AN/USM-459, NAVSEA SE610-AW-MMA-010, NAVSEA SE610-AW-MMA-020, NAVSEA SE610-AW-MMA-030, NAVSEA SE610-AW-MMA-040, NAVSEA SE610-PV-MMM-010, NAVSEA SE610-PV-MMO-010, NAVSEA SE640-AF-MMO-011, NAVSEA SE640-AF-MMO-020, NAVSEA SE640-AF-MMO-030, NAVSEA SE640-AF-MMO-040, NAVSEA 0967-LP-011-2421, NAVSEA 0967-LP-024-5454 (Parts 1, 2, 3, 4), NAVSEA 0967-LP-024-5464 (Parts 1, 2, 3, 4), NAVSEA 0967-LP-024-5780 NDRO Program, NAVSEA 0967-LP-024-5800, TM 11-5825-272-23, TM 11-5825-282-10, and TM 11-5825-282-23.

STANDARDS

The standards are met when the AN/TSQ-158(V)1 NCS successfully communicates with the EPLRS community.

TRAINING AND EVALUATION
Evaluation Guide

CAUTION

To prevent damage to the CRT, wait 15 seconds after turning MAIN POWER switch on or until the DCC's GO/NO-GO indicator blinks three times and buzzer sounds before turning on the 18KV/5KV HIGH VOLTAGE switch.

Performance Measures	Results	
1. Perform system power-up procedure, PMs 1 through 4. (Refer to TM 11-5825-282-10.).	P	F
2. Observe volt/phase sequence indicator and other lamps. If fault occurs, go to PM 11.	P	F
3. Verify AC voltages and frequencies are correct. If incorrect, adjust generator to the specified value or go to PM 11.	P	F
4. Set remaining power control panel circuit breakers to ON. If any faults occur, go to PM 11.	P	F
5. Rotate 28 VDC POWER SUPPLY SELECT switch and verify all three voltages are within tolerance. If incorrect, go to PM 11.	P	F
6. Perform PMs 7 through 17 of the power-up procedure. If any faults occur, go to PM 11. (Refer to TM 11-5825-282-10.)	P	F
7. Perform RTEP program load procedure. If fault occurs, go to PM 11. If error message occurs, verify it is not an operator correctable fault; otherwise go to PM 11. (Refer to TM 11-5825-282-10.)	P	F
8. Perform operational key load procedure. (Refer to TM 11-5825-282-10.)	P	F
9. Perform system initialization procedure. If faults or alert messages occur, go to PM 11. (Refer to TM 11-5825-282-10.)	P	F
10. Place the NCS on-line. If faults or alert messages occur, go to PM 11. (Refer to TM 11-5825-282-10.)	P	F

DANGER

600V, 5KV, and 18KV HIGH VOLTAGES exist within the DCC. Use extreme caution when measuring voltages and waveforms around or near the CRT.

11. Identify the fault symptom. (Refer to TM 11-5825-282-23.)	P	F
12. Perform system level diagnostic program procedure, if necessary. (Refer to TM 11-5825-282-23.)	P	F
13. Load maintenance keys, if necessary. (Refer to TM 11-5825-282-23.)	P	F
14. Perform BIT procedure on the AN/UYK-44(V), if necessary. (Refer to TM 11-5825-282-23.)	P	F
15. Perform diagnostic program on the AN/UYK-7(V), if necessary. (Refer		

16. Perform low throughput test, TOA test or barometer check on the ECRU, if necessary. If alignments are needed, go to PM 23. (Refer to TM 11-5825-282-23.) P F
17. Perform DCC checkout procedure, if necessary. (Refer to TM 11-5825-272-23.) P F
18. Select the correct fault isolation procedure. P F
19. Check for proper voltages, adjust if necessary. Go to PM 23. P F
20. Check for proper waveforms, adjust if necessary. Go to PM 23. P F
21. Isolate to the LRU. P F
22. Perform corrective action. Go to PM 23 or PM 24, if applicable. P F

NOTE: Before performing remove/ replace procedures, ensure the fault is not an alignment/adjustment problem.

23. Perform required alignments/ adjustments. (Refer to TM 11-5825-282-23 and TM 11-5825-272-23.) P F

DANGER

600V, 5KV, and 18KV HIGH VOLTAGES exist within the DCC. Allow at least 1 minute for the HIGH VOLTAGE to discharge before removing any components in the HIGH VOLTAGE section of the DCC.

24. Remove faulty LRU. (Refer to TM 11-5825-282-23 and TM 11-5825-272-23.) P F

NOTE: If LRU replacement is not required, go to PM 27.

25. Replace faulty LRU. P F
26. Perform final alignment/adjustment procedures, if necessary. Go to PM 23. P F
27. Verify the fault is fixed, perform required after maintenance checks. P F
28. Repeat PMs 1 through 10. If no other faults are found, go to PM 29. P F
29. Resume operations. (Refer to TM 11-5825-282-10). P F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5825-272-23	None
TM 11-5825-282-10	
TM 11-5825-282-23	
NAVSEA SE610-AW-MMA-010	
NAVSEA SE610-AW-MMA-020	
NAVSEA SE610-AW-MMA-030	
NAVSEA SE610-AW-MMA-040	
NAVSEA SE610-PV-MMM-010	
NAVSEA SE610-PV-MMO-010	
NAVSEA SE640-AF-MMO-011	
NAVSEA SE640-AF-MMO-020	
NAVSEA SE640-AF-MMO-030	
NAVSEA SE640-AF-MM0-040	
NAVSEA 0967-LP-011-2421	
NAVSEA 0967-LP-024-5454 (Parts 1, 2, 3, 4)	
NAVSEA 0967-LP-024-5464 (Parts 1, 2, 3, 4)	
NAVSEA 0967-LP-024-5780 NDRO Program	
NAVSEA 0967-LP-024-5800	

113-630-5001
INITIALIZE THE AN/TSQ-158(V)1 SYSTEM

CONDITIONS
Given a net control station (NCS) AN/TSQ-l58(V)1, COMSEC paper tapes, tape reader KOI-l8, data transfer device AN/CYZ-10, RTEP tape, 5-ton truck, installed 30 kw generator set, and TM 11-5825-282-10.

STANDARDS
The standards are met when the NCS AN/TSQ-l58(V)1 can come on-line and all alerts are cleared from the DCC.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Perform power-on procedures.	P	F
2. Perform program load procedures.	P	F
3. Perform system initialization.	P	F
4. Load operational keys.	P	F
5. Place the NCS on-line.	P	F
6. Clear all alerts on the DCC.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
TM 11-5825-282-10	None

Subject Area 5. Advanced Operations

113-580-3061
COORDINATE CALIBRATION SUPPORT

CONDITIONS

Given multimeter AN/PSM-45 or equivalent, oscilloscope OS-261C or equivalent, stroboscope TS-805 or equivalent, TRI-PAC AN/USM-181, fiber optic tester TS-4021, list of assigned TMDE, FM 43-11, TB 43-180, TB 750-25, DA Pam 738-750, DA Label 80, and DA form 2402.

STANDARDS

The standards are met when all calibration requirements are met.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Identify assigned TMDE requiring calibration support. (Refer to TB 43-180.)	P	F
2. Identify supporting calibration facility for assigned TMDE. (Refer to FM 43-11.)	P	F
3. Ensure calibration schedule for assigned TMDE is followed and met. (Refer to TB 750-25.)	P	F
4. Prepare DA Form 2402 for all assigned TMDE. (Refer to DA Pam 738-750.)	P	F
5. Ensure a completed DA Label 80 is affixed to each piece of assigned TMDE. (Refer to TB 750-25.)	P	F
6. Ensure a completed DA Label 80 is affixed and marked CNR to all assigned TMDE that does not require calibration. (Refer to TB 750-25.)	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
DA Pam 738-750	None
FM 43-11	
TB 43-180	
TB 750-25	

113-603-3214
MAINTAIN SYSTEMS INTERCONNECTIVITY

CONDITIONS

Given an AN/TYC-39A or AN/TYQ-30/31(V) with a fault in the interconnection of your assigned system(s); multimeter AN/PSM-45 or equivalent; tool kit TK-105 or equivalent; power plant AN/MJQ-10 with MPDU ON-224/T or equivalent; if required, COMSEC keys and four assigned personnel; TM 11-5895-1392-12 and TM 11-5895-1392-34 for AN/TYQ-30(V); TM 11-5895-1393-12 and TM 11-5895-1393-34 for AN/TYQ-31(V); TM 11-5805-790-12-1, TM 11-5805-790-12-2, TM 11-5805-790-12-3, TM 11-5805-790-12-4, TM 11-5805-790-12-5, TM 11-5805-790-12-6, TM 11-5805-790-12-7, TM 11-5805-790-12-8 and TM 11-5805-790-12-9 for AN/TYC-39A; TM 5-6115-465-12 for AN/MJQ-10; and TM 5-6115-594-14&P and TM 11-6110-249-14 for the MPDU.

STANDARDS

The standards are met when site system(s) interconnectivity with the unit's personnel is established and maintained.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Soldier will perform or assist his subordinates with the following steps.

Performance Measures	Results	
Establish site security		
1. Select a site that will accommodate seven selected systems.	P	F
2. Position and level trucks and trailers.	P	F
3. Select the fire points.	P	F
4. Secure the site perimeter.	P	F
Establish site power		
5. Ground equipment (system and power plant).	P	F
6. Perform AN/MJQ-10 power cable hookup procedures, MPDU if required.	P	F
Establish system operations		
7. Install power cables to selected systems.	P	F
8. Install communication cables.	P	F
a. Install interswitch cables.		
b. Install subscriber equipment.		
9. Apply power interconnectivity.	P	F
10. Perform systems initialization.	P	F
Establish systems interconnectivity		
11. Program database.	P	F
12. Install strapping options to appropriate circuits/trunk designation(s).	P	F
13. Acquire/generate keying material.	P	F
a. Load appropriate keys into COMSEC equipment.		
b. Prepare and secure a key variable management plan.		
c. Secure keying devices when not in use.		
14. Perform an in-house loopback.	P	F
Troubleshoot system interconnectivity		
15. Establish communication link to connecting system(s).	P	F
16. Start with system status summary and select the fault isolation flowchart.	P	F
17. Select the correct decision block, follow the fault isolation flow-chart procedures.	P	F
18. Perform required adjustments.	P	F

NOTES: If no adjustments are required, go to PM 19.

If adjustments do not correct problem, repeat PMs 12 through 15 to ensure correct options match circuit/trunk designation. If all options are correct, go to remove/replace procedures. If problem is corrected, go to PM 23.

19. Remove faulty LRU.	P	F

NOTE: Before replacing faulty LRU, ensure options match circuit/trunk designation. If COMSEC equipment is being replaced, ensure correct reload keys are used.

20. Replace faulty LRU.	P	F
21. Perform required adjustments.	P	F
22. Repeat PMs 7 through 15. If no		

fault is found, go to PM 23. P F

23.

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Resume operations. P F

Required	Related
TM 5-6115-465-12	FM 11-60
TM 5-6115-594-14&P	FM 11-61
TM 11-5805-790-12-1	FM 11-62
TM 11-5805-790-12-2	FM 11-63
TM 11-5805-790-12-3	FM 11-72
TM 11-5805-790-12-4	TC 24-24
TM 11-5805-790-12-5	
TM 11-5805-790-12-6	
TM 11-5805-790-12-7	
TM 11-5805-790-12-8	
TM 11-5805-790-12-9	
TM 11-5895-1392-12	
TM 11-5895-1392-34	
TM 11-5895-1393-12	
TM 11-5895-1393-34	
TM 11-6110-249-14	

113-603-6007
INVENTORY COMSEC KEYING MATERIAL

CONDITIONS
Given the responsibility to correct and complete the key management worksheets that comprise the management log, (C)TB 380-40, (C)FM 24-27A, DA Form 5251-R, and DA Form 5251-1-R.

STANDARDS
The standards are met when the key management worksheets are completed and verified by the COMSEC custodian.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Refer to (C)TB 380-40, Figure 3-17 for PMs 1 through 10 and Figure 3-18 for PMs 11 through 22.

Performance Measures	Results	
1. Fill in the key identification. Key is identified by the communications media secured. a. Cryptonet name. b. Circuit number. c. System number. d. Telephone instrument. e. Orderwire.	P	F
2. Fill in the key type.	P	F
3. Fill in the classification.	P	F
4. Fill in the equipment type.	P	F
5. Fill in the cryptoperiod.	P	F
6. Fill in the effective date.	P	F
7. Fill in the alternate cryptonet control station (CNCS) if assigned.	P	F
8. Fill in the subscriber identification.	P	F
9. Fill in the distribution point of contact.	P	F
10. Fill in the remarks.	P	F
11. Fill in the identification.	P	F
12. Fill in the key type.	P	F
13. Fill in the classification.	P	F
14. Fill in the effective date.	P	F
15. Fill in the supersession date.	P	F
16. Fill in the date generated.	P	F
17. Fill in the HUS location.	P	F
18. Fill in the KYK-13 serial number and location.	P	F
19. Fill in the KYK-15 serial number and location.	P	F
20. Fill in the COMSEC equipment.	P	F
21. Fill in the courier.	P	F
22. Fill in the remarks.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
(C)TB 380-40	None
(C)FM 24-27A	

113-603-6008
DEVELOP MESSAGE SWITCH NETWORK INTERCONNECTIVITY PLAN

CONDITIONS
Given strapping worksheets, TM 11-5805-790-12-1, TM 11-5805-790-12-3, TM 11-5805-790-12-6, FM 24-22, TC 24-24, JCS Pub 6-05.3, JCS Pub 6-05.4, JCS Pub 6-05.7, and system planner's documents.

STANDARDS
The standards are met when message switch network data is established and accepted by the system planner.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Develop a message switch diagram. (Refer to FM 24-22, JCS Pub 6-05.3, JCS Pub 6-05.7, and system planner's documents.)	P	F
2. Identify and assign resources. (Refer to TC 24-24, JCS Pub 6-05.4, and TM 11-5805-790-12-1.)	P	F
3. Assign circuit priorities. (Refer to FM 24-22, TM 11-5805-790-12-3, and JCS Pub 6-05.3.)	P	F
4. Develop routing tables. (Refer to FM 24-22, JCS Pub 6-05.3, and TM 11-5805-790-12-3.)	P	F
5. Develop alternate routing tables. (Refer to FM 24-22, JCS Pub 6-05.3, and TM 11-5805-790-12-3.)	P	F
6. Complete strapping worksheets. (Refer to JCS 6-05.3 and TM 11-5805-790-12-6.)	P	F
7. Develop database. (Refer to JCS Pub 6-05.3 and TM 11-5805-790-12-6.)	P	F
8. Determine automatic network timing source. (Refer to JCS Pub 6-05.3.)	P	F
9. Prepare timing source diagram. (Refer to JCS Pub 6-05.3.)	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
FM 24-22	TM 11-5805-790-12-2
JCS Pub 6-05.3	TM 11-5805-790-12-4
JCS Pub 6-05.4	TM 11-5805-790-12-5
JCS Pub 6-05.7	TM 11-5805-790-12-7
TC 24-24	TM 11-5805-790-12-8
TM 11-5805-790-12-1	TM 11-5805-790-12-9
TM 11-5805-790-12-3	
TM 11-5805-790-12-6	

Subject Area 6. Supervision Tasks

113-573-0001
CHECK SIGNAL SECURITY (SIGSEC) PROCEDURES

CONDITIONS

This task is performed in a tactical or nontactical situation, under all weather conditions. You will be provided with an established signal node with organic cryptosystems and an operation order (OPORD).

STANDARDS

The standards are met when emission, physical, crypto, transmission, and electronics areas of security are checked and corrective action is taken for any discrepancy noted.

TRAINING AND EVALUATION

Evaluation Preparation

Setup: Different types of signal operational requirements will be in effect for this task.
Brief Soldier: You are required to check SIGSEC at the signal area node and make the necessary corrections.

Evaluation Guide

Performance Measures	Results	
1. Review the mission OPORD, signal operation instruction, and standing operating procedure to determine specific SIGSEC policies and operating procedures for your signal node.	P	F
2. Check emission security.	P	F
3. Check physical security.	P	F
a. Area node.		
b. Area where a cryptosystem is employed.		
c. Emergency evacuation and destruction plans.		
d. Handling of classified material waste.		
e. Control of access and crypto safeguards.		
4. Check cryptographic security.	P	F
a. Proper utilization of cryptosystems.		
b. Encryption of all classified information.		
c. Competent operation of cryptosystems.		
5. Check TRANSEC.	P	F
a. Radio communications.		
b. Conventional telephone communications.		
6. Direct appropriate corrective action for any discrepancy noted.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
OPORD	AR 380-5
	AR 530-1
	FM 19-30
	FM 24-18
	TB 380-41

113-573-1002
EVALUATE PHYSICAL SECURITY OF FACILITIES

CONDITIONS
You will need a facility, AR 190-13, and FM 19-30.

STANDARDS
The standards are met when discrepancies are reported to the controlling authority.

TRAINING AND EVALUATION
Evaluation Guide

NOTE: Refer to AR 190-13 and FM 19-30 for PMs 1 through 3.

Performance Measures	Results	
1. Prepare checklist for type facility.	P	F
2. Perform physical security inspection.	P	F
3. Report discrepancies to controlling authority.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
AR 190-13	FM 11-43
FM 19-30	

113-623-7156
INSPECT SITE MAINTENANCE PROGRAM

CONDITIONS

This task is performed in a tactical or nontactical environment. On-hand maintenance records/forms require inspection to ensure compliance with DA Pam 738-750. Given DA Pam 738-750, DA Pam 710-2-1, DA Pam 710-2-2, applicable equipment TMs; applicable maintenance forms: DD Form 314, DA Form 2765-1, DA Form 2404, DA Form 2405, DA Form 2407, and DA Form 2407-1.

STANDARDS

The standards are met when records/maintenance forms are correctly completed, discrepancies are noted, and corrective actions/training are taken.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results
1. Inspect DD Forms 314 to ensure compliance with DA Pam 738-750 and/or applicable TMs.	P F
a. All required equipment/services are scheduled:	
(1) All required systems are listed.	
(2) All required subsystems are listed.	
(3) Like items are correctly listed.	
b. DD Forms 314 are correctly completed.	
(1) Entries are correct.	
(2) Symbols used are correct.	
(3) Services are scheduled/ performed within time tolerance.	
c. Services are scheduled and completed.	
d. NMCM/NMCS times are correctly posted.	
2. Inspect DA Forms 2404 to ensure compliance with DA Pam 738-750.	P F
a. DA Forms 2404 are correctly completed.	
b. Located faults are valid and listed properly.	
c. Distribution/maintenance/ disposition of DA Forms 2404 are properly made.	
3. Inspect DA Forms 2405 to ensure compliance with DA Pam 738-750.	P F
a. All DA Forms 2407 are logged.	
b. All entries are correctly made.	
4. Inspect DA Forms 2765-1 to ensure compliance with DA Pam 738-750.	P F
a. DA Forms 2765-1 are correctly completed.	
b. Due-in receipt files are current and up to date.	
5. Inspect DA Forms 2407 and 2407-1 to ensure compliance with DA Pam 738-750.	P F
a. DA Forms 2407 and 2407-1 are correctly completed.	
b. Due-in receipts are valid and properly maintained.	
6. Evaluate maintenance program.	P F
7. Provide guidance/assistance in weak area(s) of maintenance program.	P F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
Applicable equipment TMs	None
DA Pam 738-750	
DA Pam 710-2-1	
DA Pam 710-2-2	

Subject Area 7. Performance Tasks

113-573-0006
PREPARE EMERGENCY PLAN

CONDITIONS

Given a requirement to prepare an emergency plan, AR 380-40, AR 380-5, and TB 380-41.

STANDARDS

The standards are met when an emergency plan is prepared. Due to the nature of this task, a time limit is not established.

TRAINING AND EVALUATION

Training Information Outline

1. Coordination and planning are vital to effective emergency procedures. Emergency plans involving COMSEC material are coordinated with or incorporated into command emergency plans. This ensures evacuation, storage, and/or destruction are effectively and securely performed in the event of an actual emergency.
2. Emergency measures are taken in the event of an emergency and include evacuation, secure storage, and destruction. The commander decides which measures are taken and indicates those measures not considered feasible.

a. Evacuation and/or secure storage are considered before destruction. However, simultaneous implementation of any two or all three measures may be necessary. For example, if it appears a civil uprising will be of short duration and the cryptofacility abandoned for only a short period of time, destroy superseded key, evacuate future and current key, and store all equipment.

b. Evacuation is the removal of COMSEC material to a safe location. During evacuation, make every effort to prevent loss or unauthorized access from the time of evacuation to the subsequent return of the material to its original location or relocation to a new secure area.

c. Several factors which influence the decision to store or evacuate COMSEC material are the time available, future requirements for the COMSEC material, and the bulk and weight of the material.

d. Secure storage during a emergency.

(1) Secure storage during an emergency is achieved by using authorized vaults, safes, or a secure room. If a secure room is used, all classified boards must be removed from nonsecured COMSEC equipment and stored in approved security containers along with classified components and other classified COMSEC material.

(2) If possible, a guard should remain in or near the storage area. The presence of a guard does not satisfy the emergency storage requirement, it is desirable as a secondary barrier.

(3) Secure storage is not an effective emergency measure while under the threat of enemy attack.

e. Various factors which influence the decision to secure COMSEC material are the time available, the nature of the emergency (whether by human or natural causes), the seriousness of the emergency, the possibility of returning to the site, and the bulk and weight of the material.

3. Destruction priorities for emergency destruction of COMSEC material are:

a. Priority 1: Used superseded classified key marked CRYPTO is the most sensitive COMSEC material. It must be given the highest priority to prevent compromise. All superseded and current classified key marked CRYPTO except authenticators, CONFIDENTIAL tactical operations codes, unused OTP and OTT, and unused point-to-point (two copy) key.

b. Priority 2: Superseded, current, and future card reader insert boards (CRIBs).

c. Priority 3: TOP SECRET multiholder key which will be effective within the next 30 days.

d. Priority 4: Superseded tactical operations codes.

e. Priority 5: SECRET and CONFIDENTIAL multiholder key which will be effective within the next 30 days.

f. Priority 6: Sensitive pages of cryptoequipment maintenance manuals or the complete manual.

g. Priority 7: Classified COMSEC equipment elements or subassemblies, such as printed circuit boards and module boards, in the order listed in the appropriate maintenance manuals.

h. Priority 8: The remaining COMSEC equipment maintenance manuals and classified operating instructions.

i. Priority 9: All remaining classified COMSEC material and unclassified key marked CRYPTO. If time permits, destroy superseded authenticators and unused two-copy key.

4. Destruction methods and materials.

a. Shredders: Any type shredder may be used when other methods of destruction are not available and the key is mixed with an equal amount of other similar material. Shredders are also a supplementary method to speed destruction, when necessary. Shredded key larger than 1.2mm (0.05 inches) wide and 13mm (0.5 inches) long or as an alternative, 0.73mm (0.03 inches) wide and 22.2mm (0.87 inches) long are scattered or dispersed over a wide area.

b. Document destroyer kits: Use document destroyer kit M4 or other prepared kits for document destruction.

c. Incendiary file destroyer: Use incendiary file destroyer ABC-M4. Two incendiary file destroyers are required for a four-drawer file cabinet.

d. Fuels: Use kerosene, gasoline, and sodium nitrate to expedite burning. Use extreme care for personal safety.

5. Destruction of COMSEC equipment is the last resort to prevent it falling into unauthorized hands. Destruction is any method which renders the equipment unusable and unrepairable. Destruction is accomplished to a degree that logic reconstruction is not possible. Do this by removing and destroying the classified assemblies within the equipment, including classified printed circuit boards and multilayer boards.

a. Thermite incendiaries provide effective and total destruction (not authorized for use within the continental United States except for training purposes).

b. Incinerators are used to destroy printed circuit boards. If necessary, break up the boards after they are removed from the incinerator.

c. Printed circuit boards may be destroyed by hacking with an ax and scattering the pieces.

d. CRIBs are destroyed by first peeling off the metal backing plate, then cutting the CRIB into pieces using heavy scissors or tin snips. Use an acetylene torch, if available, to completely destroy the circuitry on the remaining pieces.

6. Emergency task cards are used for carrying out emergency plans. They identify each specific task that will be done. Record each task and the approximate completion time on a separate 5 X 8 card. Ensure the task cards are in the priority order in paragraph 3.

a. In a emergency, personnel will report to a predesignated location. A COMSEC officer or other designated individual issues the task cards, one at a time, to individuals. Each individual will carry out the designated task as written on the card and return to the person in charge to report the task is completed. The individual is then given the next task. This continues until all tasks are completed.

b. Under this system, many tasks are completed at the same time, maximum personnel are employed, and emergency action progress is known at all times.

9. Reporting measures.

a. Whenever emergency plans are executed, message reports are sent to:

CDR USACSLA, FT HUACHUCA AZ //SELCL-PP// and
CDR INSCOM, AHS VA //IAOPS-CI-P//

In addition, an information copy is sent to the activity providing COMSEC support and to the unit's next higher headquarters.

b. A report of an emergency incident which did not result in an insecurity will include, as a minimum, a list of the material destroyed or relocated, the method and degree of destruction, and indicate the circumstances which caused the execution of emergency plans.

Evaluation Guide

Performance Measures	Results	
1. Develop emergency evacuation measures.	P	F
2. Develop secure storage measures.	P	F
3. Develop precautionary action measures.	P	F
4. Develop emergency destruction measures.	P	F
5. Develop reporting measures.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
(C)AR 380-40	None
(O)AR 380-5	
(O)TB 380-41	

113-580-6009
PREPARE A CONTINUITY OF OPERATIONS PLAN (COOP) FOR AN INFORMATION PROCESSING FACILITY (IPF)

CONDITIONS
You will need DA Pam 25-1-1, DOIM guidelines, pens, writing pad, and staples.

STANDARDS
The standards are met when the written COOP is approved by the IPF manager.

TRAINING AND EVALUATION
Training Information Outline
1. Procedures must be developed for the continuing protection of IPF files, application and system software, system documentation, and processing instructions. The level of sensitivity of these materials will be determined by the activity's support role. Various levels of protection will be given to the materials associated with each system according to their mission sensitivity. These levels are:

a. In-house backup. This level is the acceptable minimum and is mandatory for all executive and application systems. There will be at least two copies of each principal item of IPF files, programs, and procedures available to the activity operation ADPE. Files on disk or similar media will be dumped to tape or copied for backup retention according to update recency and anticipated difficulty in reconstruction. Special attention will be given to the periodic copying of files that are changed or updated in the on-line mode.

b. An alternate files storage area. This level of protection is mandatory for all AIS that provide critical IPF support to the organization's mission performance and is highly recommended for all mission essential ADPE operations in activities other than AIS. This protection is off-site storage of at least one copy of all IPF files, programs, and procedures to operate the high priority application systems either at the AIS or an alternate site of operation (including copies of COOPs and related materials). The alternate files storage area will be located in an area reasonably accessible to the AIS but not subject to the same degree of major threat as the AIS. It is recommended that the alternate files storage area be no closer than one mile from the ADPE operations center. Procedures will be established to keep material updated at the alternate files storage area on a continuing basis.

c. Storage at the alternate site of operation or COOP site. This repositioning of files, programs, and procedures in an updated and operational condition is necessary only when the highest priority of work is to be performed. It presumes that neither the principal site nor the alternate files storage area will be accessible in the required response time during or after an emergency. This level of protection for mission-essential files, programs, and procedures is mandatory for activities with an essential peacetime or wartime support role that depend on IPF support for success.

2. One or more alternate sites of operation or COOP site must be established. This is mandatory for all AIS that have critical wartime, peacetime, or mobilization missions. It is recommended that other AIS with similar missions receive first consideration as COOP sites because of potential similarity of ADPE, software, and the availability of trained personnel. The principal factors in COOP site selection are:

a. Compatibility of installed ADPE at the potential site.

b. Ability of the potential site to accept the emergency workload.

c. Accessibility of potential sites to communications and transportation of input and output material.

d. Willingness of the potential site manager to enter a formal agreement.

e. Probability that the potential COOP site will not be subject to the same principal threats.

f. Recovery planning addresses the necessary actions to fully recover from the backup operation. The use of backup facilities usually means increased cost and degraded performance. It is worthwhile, but not mandatory, to include recovery plans in the COOP.

g. Deployment to the COOP site requires detailed planning and close coordination. Develop detailed procedures that:

(1) Determine when deployment will take place under various circumstances.

(2) Determine which applications will be deployed.

(3) List personnel who will deploy to the

COOP site.

(4) Develop the load list materials and supplies to be deployed.

(5) Arrange for transportation, food, and billeting.

3. The format and content of the final COOP should conform to the guidance in DA Pam 25-1-1. Deviations from the prescribed format are permitted.

4. Data processing (DP) support under wartime conditions.

a. The continuity of DP operations during national emergencies or wartime conditions will agree with the role and survivability of the organization supported.

b. IPF managers performing risk assessments for systems with mobilization/wartime critical missions should be aware of destructive effects of the energy generated by nuclear explosions.

5. An IPF in a foreign country or war zone will be evacuated to a safe area when it becomes endangered by enemy forces or other hostile acts. If it is not feasible to relocate IPF equipment, all equipment and associated materials (DP files, programs, and procedures) will be destroyed or rendered inoperative.

Evaluation Guide

Performance Measures	Results	
1. Select alternate site.	P	F
2. Coordinate references.	P	F
3. Write Section I, General.	P	F
4. Write Section II, Protection of Records and Documentation.	P	F
5. Write Section III, Emergency Response.	P	F
6. Write Section IV, Backup Operation.	P	F
7. Write Section V, Recovery (if desired).	P	F
8. Write Section VI, Contingency Operations.	P	F
9. Test the COOP.	P	F
10. Revise the COOP as necessary.	P	F
11. Pass the COOP to the IPF manager.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
DA Pam 25-1-1	None

113-580-7084
SELECT A SITE FOR A TACTICAL AUTOMATED INFORMATION SYSTEM (AIS)

CONDITIONS
You will need a map, FM 24-1, OPORD, and operation plan (OPLAN).

STANDARDS
The standards are met when a suitable site is selected IAW security, geographical guidelines, and approved by the OIC.

TRAINING AND EVALUATION
Training Information Outline
1. In a tactical situation, your sole concern is not just obtaining or preparing facilities to house computer equipment. You are also concerned with the selection of an area of terrain large enough to accommodate the tactical AIS, its supporting equipment, supplies, and its accessibility to supporting and supported agencies.
2. Generally, for tactical systems, you must be concerned with such things as site accessibility, roadways, geographical location, terrain slope, and security.

a. Give primary consideration to the route of travel to the site. This includes AIS vehicular movement and the customer's ability to get to the site. Site selection requirements will indicate the type of roadway, width, and load restriction. Other pertinent factors are the distance from the customer, establishing resupply routes, and at least one alternate route. The routes selected must meet the following criteria:

(1) Road must be usable in all types of weather and under all conditions. Unpaved roads must not become impassable because of rain, snow, and so forth.

(2) Approach roads must have a 14-foot overhead clearance from trees, limbs, and other obstructions, and provide adequate turning space for the 35-foot vans. Refer to the operator's manual for the turning radius. This is especially important in small towns and most overseas areas.

(3) Underpasses must have a minimum 14-foot clearance and meet width clearance for the computer vans.

(4) Bridges must be capable of supporting a minimum of 35 tons.

(5) Try to avoid congested areas along the selected routes. Congestion will violate convoy integrity and greatly increase the chance for accidents.

(6) Grades on the route must not exceed the limitations of the 5-ton prime mover. Normally, a twenty-five percent grade is the maximum that can be negotiated.

(7) Operational or deployment times will be dictated by higher headquarters, therefore, you must determine the required travel time as accurately as possible. Factors to be considered are:

(a) Railroad crossings.
(b) Traffic lights.
(c) Checkpoints.
(d) Intersections.
(e) Maximum travel speed of the slowest vehicle in the convoy IAW military and civilian traffic laws.

(8) Identify areas along the selected routes that may require police escorts or traffic controllers.

b. The site must be large enough for the entire AIS and supporting equipment. Do not select a site in an area which would severely affect equipment operation or the supplies, such as near bodies of water where there is a lot of moisture in the air. Do not locate the site in the path of helicopter or fixed wing aircraft approach, departure, or landing areas.

c. Select a site that is elevated, level, and has hardpan soil. This is not always possible, however, the site should meet as many of these demands as possible. It is absolutely necessary to avoid areas with extremely soft and/or wet surfaces or surfaces likely to accumulate water under varying weather conditions. There must be a flat area large enough to accommodate all the vans.

d. Select a site that is easy to secure, defend, and offers some natural camouflage and concealment. Artificial camouflage can be used to enhance concealment of the site.

3. Provide for rapid response in a deployment situation. There should be a written SOP defining each operational requirement for deployment. The SOP should include the number and type of

vehicles, power sources, cable length, and distribution load. Depending on the system, assign personnel to teams which have specific tasks.

4. There are two ways to choose a tactical site.

a. Do a map study using maps, aerial photos, and information from your J2/G2/S2. Quick changes may be necessary due to battlefield conditions; for instance, the chosen area may now be in use by another unit or it could be a designated mine field.

b. Form a ground/site reconnaissance team with personnel from operations and maintenance.

5. Site selection responsibilities include:

a. Prepare a strip map for the primary and alternate routes. It should include the start/release points, route numbers, curves, bridges, grades, hazard points requiring extreme caution, traffic control points, mileage between major points, and rest stops.

b. The primary and alternate sites must meet the following criteria:

(1) General requirements:

(a) Adequate maneuver room for all equipment.

(b) Natural cover to aid in camouflaging major items of equipment.

(c) Ground slope cannot exceed four percent in any direction for CPU and mass storage vans. This requirement exists because the built-in leveling capability cannot compensate for more than that.

(d) Area near the computer vans cannot be excessively sandy, muddy or dusty.

(2) Specific requirements:

(a) Ensure the site is large enough to contain all vehicles and facilities.

(b) Site selected for placement of the computer vans must have adequate drainage and be able to support the weight of the vans. Check for debris that might cause tire damage or hamper the leveling of vans.

(c) Generator must be located within 25 feet of the power distribution box.

(d) The cable connections of the most distant computer van must be within 50 feet of the power distribution box.

(e) The cable connections for the support, maintenance, and storage vans must be within 100 feet of the power distribution box.

(f) Positions for the CPU and mass storage vans should be marked with engineer tape prior to the arrival of the vans.

(g) Area for POL storage should be a minimum of 100 feet from the generator and must be on the downhill side of the slope. The access road for refueling of fuel pods and refueling of vehicles must be passable under all conditions.

(h) Area for tents is within a reasonable distance of the computer vans.

(i) Site should be defensible from ground and air attack. The location and number of guard posts should be determined.

(j) Site must have an emergency evacuation route for use when the primary access road cannot be used.

Evaluation Guide

Performance Measures	Results	
1. Determine the specific site requirements. a. Logistics. b. Equipment. c. Personnel.	P	F
2. Use map(s) to perform preliminary site selection.	P	F
3. Determine site suitability. a. Geographical and terrain features. b. Accessibility. c. Alternate approach/emergency evacuation route. d. Distance of site from support elements. e. Resupply routes. f. Defendability.	P	F
4. Visit the site, if possible.	P	F
5. Designate equipment locations, if possible.	P	F
6. Prepare strip maps to indicate route of travel to the site.	P	F
7. Present the site recommendation to OIC.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
FM 24-1	AIS TMs Manufacturer's reference manual

113-580-7086
DEVELOP AN ACCREDITATION PLAN FOR AN AUTOMATED INFORMATION SYSTEM (AIS)

CONDITIONS

You will need AR 380-19, local DOIM policy, and standard office supplies.

STANDARDS

The standards are met when an accreditation plan is accepted by the DOIM or site commander.

TRAINING AND EVALUATION

Training Information Outline

1. Use AR 380-19, Chapters 3 and 5 to identify the type of system to be accredited. Use the following system criteria:
   a. Size.
   b. Criticality.
   c. Mode of operation.
   d. Processing data sensitivity level.
   e. Number of users on the system.
2. Identify the type and style of accreditation plan as required by the DOIM policy and higher headquarters.
3. If required, develop a security plan IAW AR 380-19.
4. Identify the accreditation goals and objectives.
5. Define the proposed system operations. Pay special attention to defining key security features and identifying the security mode of operation.
6. Use AR 380-19, Chapter 5, to conduct risk assessment.
7. Develop security countermeasures using the DOIM policy for reference.
8. Develop a security plan for users, operators, and the ISSO.
9. Handle documentation according to the level of system vulnerability.
10. Have selected cleared personnel review your security plan and make required modifications, if necessary.
11. Upon approval by your supervisor, forward the accreditation plan to the appropriate authority.

Evaluation Guide

Performance Measures	Results	
1. Identify the type of system being accredited. a. System size. b. System criticality. c. System mode of operation. d. System processing data sensitivity level. e. Number of users on the system.	P	F
2. Identify the type of accreditation plan necessary.	P	F
3. Develop a security plan, if necessary.	P	F
4. Identify the accreditation goals and objectives.	P	F
5. Define the proposed operations. a. Define key security features. b. Identify the security mode of operation.	P	F
6. Conduct risk assessment.	P	F
7. Select the security countermeasures.	P	F
8. Develop a security plan for users, operators, and the ISSO.	P	F
9. Modify the security plan, if necessary.	P	F
10. Handle documents according to system vulnerability.	P	F
11. Forward the accreditation plan to the appropriate authority.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
AR 380-19	Manufacturer's reference manuals

113-583-7092
DESIGN A DATA COMMUNICATIONS SYSTEM FOR AN AUTOMATED INFORMATION SYSTEM (AIS)

CONDITIONS

You will need a request/requirement for a data communications system, AR 25-1, AR 380-19, DA Pam 25-2, approved information mission area modernization plan (IMA MOD), current software, current command security directives, current AIS baseline, and standard office supplies.

STANDARDS

The standards are met when the design satisfies the request.

TRAINING AND EVALUATION

Training Information Outline

1. Designing data communications capability for an AIS can be relatively easy and painless or may become a huge project involving extensive remodeling, financial projections, and funding. Many things affect the actual performance of this task. These include but are not limited to:
   a. Equipment types and quantities.
   b. Type of data to be transmitted.
   c. Distance data is to be transmitted.
   d. OS involved.
   e. Security level of data.
2. The need to transfer large amounts of data across long or short distances requires the employment of general purpose computer hardware and software that is adaptable to a variety of conditions.
3. You must follow certain steps when designing a data communications system.
   a. Determine the data communications needs.
      (1) How far this data is going to be transferred? The shortest data communications setup is normally from a standard dumb terminal to the host computer, or from one microcomputer system back-to-back with another on the same desk or table top. Currently the longest known data communications network is between National Aeronautics and Space Administration (NASA) and the Voyager space probe.
      (2) Does the system need to perform in the data transfer mode, the conversation mode, or both? Data transfer is normally performed in the batch mode on the receiving end, whereas the conversation mode normally indicates real-time communication, query, and response.
      (3) What is the frequency of transmission requirement (is this a one time or reoccurring requirement)?
      (4) What is the classification of the data, and what level of protection is necessary?
      (5) What are the budgetary restrictions?
   b. Determine the equipment capabilities.
      (1) Determine the baseline configuration. What hardware, software, data, and personnel are on hand? Know the capabilities of any existing current systems.
      (2) Ongoing projects must be brought into the picture. What is the current target configuration? This consists of those information resources currently under development but not yet operational. These resources may need adjustment to be consistent with the latest objective configuration.
      (3) What is the objective configuration? It consists of those information resources needed to provide the optimum capability in terms of technology and the information requirements needed to support the request. The objective configuration is not to be restricted by resource availability. It should provide a target for planning purposes.
   c. Finally, a plan must be developed. This plan must describe a logical progression for moving from the baseline configuration to the objective configuration. The following must be considered:
      (1) What equipment is needed to move information from point A to point B, and what options are available? There may be a number of options to choose from. Each option normally has positive and negative aspects. The required equipment configuration may include but is not limited to:
         (a) Dumb terminal to host computer system.
         (b) Microcomputer system directly connected to another microcomputer system.
         (c) Microcomputer system serving as an intelligent terminal to a host computer system (either minicomputer or mainframe computer).
         (d) Microcomputer system to either a LAN or WAN.

(e) Host computer system (either minicomputer or mainframe computer) to another host computer system (either minicomputer or mainframe computer).

(2) Availability. Is it necessary to submit a requisition and wait, or is the equipment and/or software available through channels other than new procurement?

4. When these preparations are complete, you are ready to design a data communications system appropriate to your requirements. Some additional considerations are:

a. The two simplest equipment hookups are either from a dumb terminal to a host computer, normally via coaxial cable or an RS-232; or a back-to- back hookup from one microcomputer to another.

b. When dealing with microcomputer systems, the first consideration is whether data will be transmitted and received in serial or parallel from the system's standard I/O ports, or if some type of communications card must be installed. In the back-to-back configuration, all you may need to do is connect the standard communications ports with an RS-232C NULL MODEM cable and software. A NULL MODEM cable is one with a wiring diagram that follows the RS-232 standard configuration, except the wires used to transmit and receive data are flip-flopped to allow the transmit wire from one computer to connect with the receive wire of the other computer and vice versa.

c. Microcomputer with modems and telephone circuits.

(1) About fifty percent of the time, any communications coming out of a microcomputer standard I/O port will be through the COM1 (occasionally the COM2) serial transmission port. These can be directly linked to the COM port of another computer or to an external modem for transmission via telecommunications lines.

(2) Approximately thirty percent of the time, communications will be accomplished through the use of an internally installed modem card. The card will have one or two twisted two- or four-strand wire sets. One MAY be used for an actual telephone connection; the other is normally connected to a commercial or military phone system. Both internal and external modems can be used for very short distances—from one table to the next—or very long distances such as the Voyager probe via satellite communications.

(3) Much of the remainder is taken up by the LAN systems. This can get quite complicated. Installation of a dedicated file server, transmission medium from site-to-site, and LAN cards for each terminal on the system may be required.

(4) These approximations are used loosely and even now are changing. Weigh the needs and budget against as many of these considerations as feasible.

d. Host computer hookups can be very diverse. Microcomputers, minicomputers, and mainframe computers all can be used as host computer systems. A host computer system is the central or controlling computer in a timesharing or distributed processing environment. When a microcomputer system is used as a host computer system, it is often dedicated to that sole function and may be called a file server. When a minicomputer or mainframe computer serve as a host computer system, they normally perform other data processing tasks. These configurations often call for additional equipment.

e. The specialized equipment needed for data communications varies greatly in size, capacity, and functions. The more capabilities a device has, the more complex it is; and the more complex a machine, the more expensive it will be to acquire. The following may be needed for your system:

(1) A front end processor (FEP) is a special purpose computer used to connect the communications channels on one side and the host or main computer on the other. The FEP is a computer itself and uses software to direct the transmitting and receiving of messages and data according to the protocol used in the network. It can detect and correct many transmission errors and assemble and disassemble messages. The term FEP is sometimes interchangeable with the communications control unit (CCU), although a standard CCU seldom possesses all the capabilities of an FEP.

(2) A standard modem converts digital signals received from a computer into analog signals compatible with the telephone system and vice versa. Many modems have some degree of error detection capability and controls to vary telephonic line conditions.

(3) A multiple access unit (MAU) is a multiple port CCU used with token ring networks.

(4) A concentrator is a type of CCU using transceivers on Ethernet or other nets.

(5) A hub is a type of CCU used on Arcnet, Ethernet, and others. Hubs can be used in bus, star, and ring networks. They can use coaxial cable, twisted two- or four-strand, or fiber-optic

transmission medium.

(6) A SPUR is a CCU that receives and boosts/amplifies retransmission of signals. It is the equivalent of a repeater unit.

(7) A cluster controller is a piece of data communications equipment (DCE) that controls data transmissions between multiple end users and a SPUR. It performs time-division multiplexing, but does not amplify the data signal.

f. The equipment selected directly impacts the configuration of the DCE and computer systems.

5. The software selected to guide the AIS and DCE must be compatible in order for all systems to be able to communicate. This includes but is not limited to the terminal used to initiate communications, the host systems, any microcomputers to be linked, and all DCE.

a. You may be required to obtain and load different types of software on different machines. One example would be the difference between the software on a user PC and the software of the electronic bulletin board or network they wish to access (such as PROFS) or a mainframe system.

b. Determine and select the line settings IAW the equipment requirements as stated in the manufacturer's reference manual. The values may be optional or may be required. They will include but are not limited to:

(1) The communications ports to be used (COM1 or 2 on a PC, hty## or tty## on a UNIX system, and so forth).

(2) Whether or not you wish to use parity checking bits; if so, do you want to use positive or negative values (0 or 1).

(3) The number of data bits selected (normally seven or eight).

(4) Whether or not to use stop bits (zero or one).

(5) The speed or baud rate (for example, 300; 1200; 2400; 9600; 14,400; or 28,800; and so forth).

c. Determine and select the correct transmission modes IAW the equipment requirements stated in the manufacturer's reference manual. These modes may include but are not limited to the following:

(1) Simplex operation is basically one-way transmission per line. Most fiber-optic lines are used in this mode. Many signals can go down the line but in only one direction, so two lines are often used.

(2) Half-duplex operation is two-way communication, one at a time, and resembles CB radio transmissions.

(3) Full-duplex operation is full, two-way communications, and is simultaneous.

(4) Echoplex operation. In echoplex mode, the sending terminal does not display the data being keyed in. Instead, the data is transmitted to the receiving station, which then retransmits it to the sending terminal for display.

d. Additionally, the way you string your equipment together, also called net topology, influences your equipment and software choices. Net topology deals with the physical or logical placement of nodes in a computer network. Some alternative network topologies include but are not limited to:

(1) Highly centralized (or star).

(2) Fully distributed, partially connected, linear (or bus).

(3) Fully distributed, fully connected, circular (or ring).

(4) Hybrids of the above.

e. Each of these factors will affect the equipment and software you must acquire to operate your data communications system.

6. When all research is finished, the designer must:

a. Gather the research materials.

b. Prepare alternative solutions.

c. List the advantages and disadvantages of various solutions.

d. Evaluate alternative solutions by ranking the advantages and disadvantages.

e. Choose best solution.

7. After the course of action is established, document the proposal in the form of an IMA MOD plan.

Evaluation Guide

Performance Measures	Results	
1. Determine the data communications requirements.	P	F
a. Distance to be covered.		
b. Conversation mode, data transfer mode, or both.		
c. Frequency of transmission.		
d. Minimum information system security level.		
e. Throughput.		
2. Determine the current system baseline.	P	F
a. Hardware equipment configuration.		
b. OS (to include version).		
c. Application software (to		

include version).

3.	Compare baseline to user requirements.	P	F
4.	Determine the advantages and disadvantages of possible solutions.	P	F
5.	Evaluate the solutions by ranking the advantages and disadvantages.	P	F
6.	Choose the best solution.	P	F
7.	Document the proposal, if required.	P	F
8.	Submit the proposal for approval, if required.	P	F

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
AR 25-1	Equipment TMs
AR 380-19	Manufacturer's reference manuals
DA Pam 25-2	

113-598-7042
REVISE STANDING OPERATING PROCEDURES (SOP)

CONDITIONS
As a supervisor in a support maintenance shop, you have identified the need to revise your SOP. You will need standard office supplies and FM 101-5.

STANDARDS
The standards are met when the SOP is revised to meet the mission requirements of the maintenance shop section.

TRAINING AND EVALUATION
Evaluation Guide

Performance Measures	Results	
1. Obtain needed reference.	P	F
2. Review/revise basic SOP section.	P	F
3. Review/revise administrative SOP section.	P	F
4. Review/revise tactical SOP section.	P	F
5. Review/revise mission support activities SOP section.	P	F
a. Internal operation section.		
b. External operation section.		

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
FM 101-5	FM 24-16

113-611-5013
IDENTIFY MANPOWER AND MATERIEL REQUIREMENTS TO ACCOMPLISH MISSION

CONDITIONS
As a telecommunications supervisor, your task is to identify manpower and materiel requirements to accomplish the mission. You will need the unit OPORD, FM 24-16, and FM 24-18.

STANDARDS
The standards are met when the manpower and materiel requirements are identified and paragraph 3 of the signal unit OPORD is completed IAW applicable references.

TRAINING AND EVALAUTION
Evaluation Preparation
Setup: Warning order, completed DA Form 2715-R, and a completed DA Form 2406 will be available.
Brief soldier: You will identify manpower and materiel requirements and complete paragraph 3 of the signal unit OPORD.

Evaluation Guide

Performance Measures	Results	
1. Review the mission requirements.	P	F
a. Determine net requirements.		
b. Determine location of communication sites as required.		
2. Review equipment and troop lists to determine the assets available to support the mission.	P	F
3. Review equipment capabilities.	P	F
4. Review time permitted for installation, type of terrain, and expected weather conditions under which the system will operate.	P	F

Feedback
Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
FM 24-16	AR 220-1
FM 24-18	FM 24-35
	FM 24-35-1

113-611-5014
PREPARE THE SIGNAL ANNEX TO THE OPERATIONS ORDER (OPORD)

CONDITIONS
You will be provided with an OPORD user requirements, DA Form 2406, and FM 24-16.

STANDARDS
The standards are met when the signal annex is prepared correctly and approved by S3.

TRAINING AND EVALAUTION
Training Information Outline
1. In order to prepare the signal annex to the OPORD, it is necessary to review the OPORD in detail so you have a complete understanding of the communications-electronics (CE) responsibility to the mission. To have complete understanding of the mission and implications, you must also understand the contents of the field SOP, SOI, and material status report (DA Form 2406).
2. Preparing the signal annex.

a. Heading and classification. Mark the signal annex with the same classification as the basic OPORD. As a minimum, the heading should contain the following:

> _____
> (CLASSIFICATION)
>
> Copy no ____ of ____copies
> Unit identification
> Location
> Zulu time and date
>
> Order no.
> Relation operations order (when applicable)
> References:
> Time zone used throughout the order:

b. Paragraph 1: Situation—briefly gives the general picture so subordinate commanders will understand the current situation. Always include the following subparagraphs:

(1) Enemy forces—a reference may be made to the signal annex of the command OPORD if the signal annex is available to all elements receiving the signal annex. If the signal annex is not available, pertinent information must be extracted and included in the unit annex.

(2) Friendly forces—only information pertinent to the operation of the signal unit is extracted from the signal annex and amplified, where required, to clarify the mission.

(3) Attachments and detachments—lists the attached or detached signal units with the effective date and time of the attachment or detachment from the issuing headquarters. If these units are indicated in a task organization, an appropriate reference is entered.

(4) Commander's evaluation—this is an optional subparagraph to be used when directed or required. It gives briefly the commander's evaluation of the situation.

c. Paragraph 2: Mission—briefly states the missions that are assigned to the unit or assumed by the unit commander. When the missions are as stated in the command operations, service operations, service support orders, or their annexes, the missions may be extracted and amplified as necessary to ensure clarity. This paragraph is never subparagraphed.

d. Paragraph 3: Execution—the signal unit commander's concept of the operation and the tasks assigned to each major element of the signal unit are stated in this paragraph. Task assignments may be made by simply referring to the unit SOP if they have been adequately and appropriately covered; otherwise, the tasks assigned to appropriate elements of the units are stated in this paragraph. Overlays, maps, or diagrams may be used to indicate task assignments. The last subparagraph includes appropriate coordinating instructions when instructions are applicable to two or more elements of the command.

e. Paragraph 4: Service support—this paragraph contains essential information pertaining to the procedures for obtaining service support not covered by the unit SOP, other orders, or instructions. It lists the locations on the administrative, supply, and maintenance installations that provide support to the unit; or it

makes reference to a service support order or annex that contains service support information.

f. Paragraph 5: Command and signal—contains the three following subparagraphs:

(1) Subparagraph a—contains the appropriate reference to the applicable portion of the SOI to be in effect. It also contains special instructions relating to signal matters, such as instructions on the use of pyrotechnics or restrictions on the employment of any means of communications.

(2) Subparagraph b—includes the location of the CP of the issuing unit (if not shown graphically) and the location of the CP. It may also include the CP locations of subordinate units; the CP location of the next higher headquarters; and the designation of the active and standby tactical CPs.

(3) Subparagraph c—if a signal annex is not published, this subparagraph will contain information on future locations of major headquarters.

g. Preparation and distribution—

(1) The preparation of the order is a logical and systematic procedure. It is the product of a coordinated effort by the commander and his staff. The ideal situation is to make a formal estimate of the situation, develop a formal plan, and follow with the order. Because of the type of operation and time available, you have the luxury of developing a textbook order. In a tactical environment, surprise is a key factor so you will not sacrifice the element of surprise to mull over the estimate and plan before issuing the order.

(2) In developing and distributing the order, consider the time it takes subordinate units to prepare and plan for the operation or the order will lose its effectiveness. If there is not sufficient time to develop a formal OPORD, you may have to use a series of fragmentary orders (FRAGOs), a previously prepared plan, or a combination of directives, orders, and instructions.

Evaluation Preparation

Setup: You will be provided with an OPORD, DA Form 2406, field SOP, and a FRAGO (if applicable).

Brief soldier: You must prepare a signal annex for an OPORD.

Evaluation Guide

Performance Measures	Results	
1. Analyze the mission as it pertains to CE responsibility.	P	F
NOTE: Review the command/field SOP, SOI, and applicable OPLAN or FRAGO.		
2. Review the equipment condition status report.	P	F
3. Determine the signal system planning requirements.	P	F
4. Prepare the signal annex.	P	F
a. Heading and classification.		
b. Paragraph 1 (situation).		
c. Paragraph 2 (mission).		
d. Paragraph 3 (execution).		
e. Paragraph 4 (service support).		
f. Paragraph 5 (command and signal).		
g. Preparation and distribution.		
5. Prepare appendixes for the signal annex (as required).	P	F
NOTE: A signal unit OPORD is identical in formation to the signal annex of an OPORD. It normally expands the signal annex.		

Feedback

Score the soldier GO if all steps are passed. Score the soldier NO-GO if any step is failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

REFERENCES

Required	Related
FM 24-16	None

APPENDIX

DA FORM 5164-R
(HANDS-ON EVALUATION)

The DA Form 5164-R allows the trainer to keep a record of the performance measures a soldier passes or fails on each task. Instructions for using this form follow:

Prior to evaluating—

- Obtain a blank copy of DA Form 5164-R which you may locally reproduce on 8½" x 11" paper.

- Enter the task title and 10-digit number for the task from the evaluation guide of the SM task summary.

- In column (a), enter the number of each performance measure from the evaluation guide.

- In column (b), enter the performance measure corresponding to the performance measure number in column (a). (You may abbreviate this information if necessary.)

- Enter the feedback statement from the evaluation guide just below the last performance measure.

- Locally reproduce the partially completed form if you are evaluating more than one soldier on the task or the same soldier on more than one task.

During the evaluation—

- Enter the date just before evaluating the soldier's task performance.

- Enter the evaluator's name and the soldier's name and unit.

- For each performance measure in column (b), enter a check in column (c) PASS or column (d) FAIL as appropriate.

- Compare the number of performance measures the soldier passes (and if applicable, which ones) against the task standard shown in the feedback statement. If the standard is met or exceeded, check the GO block under STATUS; otherwise, check the NO-GO block.

Figure A-1 is a sample of a completed DA Form 5164-R.

HANDS-ON EVALUATION For use of this form see AR 350-37. The proponent agency is DCSOPS.		DATE 20 FEB 1995	
TASK TITLE CAMOUFLAGE YOUR DEFENSIVE POSITION		TASK NUMBER 051-202-1363	
ITEM a	PERFORMANCE STEP b	SCORE (Check One) PASS c	 FAIL d
1	APPROACH POSITION FROM REAR.	☑ P	☐ F
2	POSITION CANNOT BE DETECTED FROM 35 METERS IN FRONT OF POSITION.	☑ P	☐ F
3	DO NOT DISTURB TREES, BUSHES AND GRASS AROUND POSITION.	☑ P	☐ F
4	COVER PARAPET WITH VEGETATION.	☑ P	☐ F
5	HIDE EXCESSIVE SOIL AT REAR OFD POSITION.	☐ P	☑ F
6	BREAK-UP OUTLINE WITH VEGETATION.	☑ P	☐ F

EVALUATOR'S NAME SFC WHITMAN	UNIT A CO 2/6TH
SOLDIER'S NAME SP4 ANDERSON	STATUS ☐ GO ☑ NO GO

DA FORM 5164-R, SEP 85 (EDITION OF 82 TO BE USED)

Figure A-1. Sample of a completed DA Form 5164-R.

GLOSSARY

AC alternating current

ACCP Army Correspondence Course Program

ADP automatic data processor/processing

ADPE automatic data processing equipment

AIS automated information system

AIT advanced individual training

ANCOC Advanced Noncommissioned Officer's Course

AN annually

AR Army regulation

ARTEP Army Training and Evaluation Program—The US Army's collective training program. ARTEP establishes unit training objectives critical to unit survival and performance in combat. The training and evaluation process is combined into one integrated function. The ARTEP is a training program and not a test. The sole purpose of external evaluation under this program is to diagnose unit requirements for future training.

ATTN attention

BCT basic combat training

BIT built-in test

BITE built-in test equipment

BM bimonthly

BNCOC Basic Noncommissioned Officer's Course

(C) CONFIDENTIAL

CAP control and alarm panel

CCU communications control unit

CE communications-electronics

CEF common equipment facility

CESG communications equipment support group

CIG communications interface group

CMTU cartridge magnetic tape unit

CNCS cryptonet control station

CNR calibration not required

COMSEC communications security

CONAUTH controlling authority

CONT continue

COOP continuity of operations plan

CP central processor/command post

CPG central processor group

CPU central processor unit

CRIB card reader insert board

critical task A task which is essential for accomplishment of the unit mission, successful individual skill performance and/or survival in battle, and requires training.

cross training The opportunity for an individual to train to additional jobs within his or her MOS.

CRT cathode ray tube

DA Department of the Army

DC direct current

DCAP diagnostic control and alarm panel

DCC display control console

DD Department of Defense

DCE data communications equipment

DLPU diagnostic line printer unit

DOIM Directorate of Information Management

DP data processing/processor

DPS data processing set

drill A standardized technique or procedure which serves as a link between individual and collective proficiency. There are battle, crew, and situational drills.

DTDI diagnostic time division interface

duty position The job a service member performs within the unit. AR 611-201 has names of official duty positions for each MOS.

DVST digital voice subscriber terminal

EBU expansion box unit

ECU environmental control unit

ECRU enhanced command response unit

EMU external monitor unit

EPLRS enhanced positions location reporting system

ESD electrostatic discharge

F fail

FEP front end processor

FM field manual

FRAGO fragmentary order

G2 Assistant Chief of Staff, G2 (Intelligence)

GA Georgia

GSE government supplied equipment

HUS hardened unique storage

Hz hertz

IAW in accordance with

IMA MOD information mission area modernization

individual training Training which the officer,NCO, or soldier receives in the training base, units, on the job, or by self-study. This training prepares the individual to perform specified duties or tasks related to the assigned or next higher specialty code of MOS skill level and duty position.

integration training The completion of initial entry training in skill level 1 tasks for an individual newly arrived in a unit, but limited specifically to tasks associated with the mission, organization, and equipment of the unit to which the individual is assigned. (It may be conducted by the unit using training materials supplied by TRADOC, by mobil training teams. In all cases, this training is supported by the TRADOC school proponent.)

I/O input/output

IPF information processing facility

ISSO information system security office(r)

ITEP individual training evaluation program—A program which requires commanders to routinely evaluate soldiers' ability to perform MOS-specific tasks critical to the unit mission.

J2 Joint Staff Intelligence Officer

JCS Joint Chiefs of Staff

kw kilowatt

LAN local area network

LRU lowest replaceable unit

MAU multiple access unit

MCU main computer unit

METL mission essential task list

merger training Training that prepares an NCO to supervise one or more MOS at lower skill levels.

MO monthly

MOPP mission oriented protection posture

MOS military occupational specialty—A group of duty positions requiring similar qualifications and the performance of closely related duties.

MPDU master power distribution unit

MTP MOS training plan—The MTP is a guide for the conduct of individual training in units. An MTP is developed for each MOS and addresses all skill levels of an MOS and all duty positions. The MTP lists all MOS-specific and shared critical tasks for which the MOS is responsible; it will not include common tasks.

NASA National Aeronautics and Space Administration

NCO noncommissioned officer

NCS net control station

(O) For Official Use Only

OIC officer in charge

OPLAN operation plan

OPORD operation order

OSUT one station unit training

P pass

PCC printed circuit card

PDU power distribution unit

PG power group

PLDC Primary Leadership Development Course

PLL prescribed load list

PM performance measures—Those behavior or product characteristics which the trainer observes/checks to determine if the soldier has performed the task correctly.

PMCS preventive maintenance checks and services

POL petroleum, oil,and lubricants

pub publication

QT quarterly

RTEP real-time EPLRS program

S2 Intelligence Officer (Army)

S3 Operations and Training Officer (US Army)

SA semiannually

SDF storage device facility

SIGSEC signal security

SL skill level—A number which denotes the level of qualification within the total MOS. Levels of qualification are identified by numbers 0 through 5 in the position of the MOS code.

SM soldier's manual

SMC Sergeants Major Course

SMCT soldier's manual of common tasks

SOI signal operation instructions

SOP standing operating procedure

SSA supply support activity

STP soldier's training publication

sustainment training The provision of instruction and opportunities for practice to ensure that individual or collective task proficiency is maintained at a requisite level. The frequency will vary with individual and collective tasks; the role, location, and personnel fill of the unit, and the desires of the commander.

task summary A statement of the task in an action-verb format plus all essential performance measures. A standard format fully describes the task for the soldier in the field. It will accommodate any product or process task whether it is in fixed sequence, alternate sequence, or combination. The task summary is used both to train the soldier to perform the task and to evaluate the soldier's ability to perform the task (within testing constraints).

TB technical bulletin

TC training circular

TDIGM time division interface group modified

TG trainer's guide

TM technical manual

TMDE test, measurement, and diagnostic equipment

train-up The process of increasing the skills and knowledge of an individual to a higher skill level in the appropriate MOS. (It may involve certification.)

training objective Training intended to accomplish a specific purpose. (The training objective is usually expressed in task format.)

TRANSEC transmission security

TRI-TAC tri-service tactical

U.S. United States

USAPC United States Army Publications Center

V volt

(V) version

VA Virginia

VDT video display terminal

VOL volume

WAN wide area network

REFERENCES

Section I
Required Publications

Army Regulations

AR 25-1
The Army Information Resources Management Program. 18 November 1988

AR 25-400-2
The Modern Army Recordkeeping System (MARKS). 26 February 1993

AR 190-13
The Army Physical Security Program. 30 September 1993

AR 380-19
Information Systems Security. 1 August 1990

AR 380-40
(O)Policy for Safeguarding and Controlling COMSEC Material(U). 29 July 1994

Soldier Training Publications

STP 21-1 SMCT
Soldier's Manual of Common Tasks Skill Level 1. 1 October 1994

STP 21-24 SMCT
Soldier's Manual of Common Tasks (SMCT) (Skill Levels 2, 3, and 4). 1 October 1992

Department of the Army Pamphlets

DA Pam 25-1-1
Installation Information Services. 27 August 1991

DA Pam 25-2
Information Mission Area Planning Process. 30 April 1991

DA Pam 351-20
Army Correspondence Course Program Catalog. 1 April 1994

DA Pam 710-2-1
Using Unit Supply System: Manual Procedures. (C1-13) 1 January 1982

DA Pam 710-2-2
Supply Support Activity Supply System: Manual Procedures. (C1-11) 1 March 1984

DA Pam 738-750
Functional Users Manual for the Army Maintenance System (TAMMS). 27 September 1991

Field Manuals

FM 19-30
Physical Security. 1 March 1979

FM 24-1
Signal Support in the AirLand Battle. 15 October 1990

FM 24-16
Communications-Electronics Operations, Orders, Records and Reports. 7 April 1978

FM 24-18
Tactical Single-Channel Radio Communications Techniques. 39 September 1987

FM 24-22
Communications-Electronics Management System (CEMS). 30 June 1977

FM 24-24 SS BY tc 24-24

FM 24-27A
(C)Communications Security Applications (TRI-TAC) Equipment(U). 13 June 1986

FM 43-11
Direct Support Maintenance Operations (Nondivisional). 5 September 1991

FM 101-5
Staff Organization and Operations. 25 May 1984

Cryptographic Aids

(C)KAO-193A RP
Guidelines for the Use and Operation of TRI-TAC COMSEC Equipment (U)

(O)NAM-24A/TSEC
Maintenance Manual for TSEC/CI-5, CI-7 and CI-8, Vol 1, Description, Operating Instruction (U)

Joint Chiefs of Staff Publications

JCS Pub 6-05.3
Manual for Employing Joint Tactical Communications Systems Joint Record Data Communications. 15 November 1990

JCS Pub 6-05.4
Manual for Employing Joint Tactical Communications Systems Joint Transmissions Systems. 1 July 1990

JCS Pub 6-05.5
Manual for Employing Joint Tactical Communications Systems Joint Communication Security (U) 30 December 1985

Technical Bulletins

TB 43-18
Calibration and Repair Requirements for the Maintenance of Army Materiel. 29 August 1994

TB 380-40
(C) Key Variable Management and Cryptosetting for Electronically Keyed COMSEC Systems (U). 28 July 1986

TB 380-41
(O) Procedures for Safeguarding, Accounting, and Supply Control of COMSEC Material. 1 August 1994

TB 750-25
Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support Program. 9 November 1984

Training Circulars

TC 24-24
Signal Data References: Communications-Electronics Equipment. 3 October 1988

Technical Manuals

TM 5-4120-379-14
Operator's, Organizational, Direct Support and General Support Maintenance Manual for Air Conditioner, Horizontal Compact; 18,000 BTU/HR, 208V, 3 Phase; 50/60 Hz. 28 November 1983 (C1-4)

TM 5-4120-384-14
Operator's, Organizational, Direct Support and General Support Maintenance Manual Air Conditioner, Horizontal, Compact; 18,000 BTU/HR, 208V, 3 Phase, 50/60 Hz, Model F18H-3S and 230V, Single Phase, 60 Hz, Mdl F18H-1S. (C1-4) 27 May 1985

TM 5-6115-465-12
Operator's and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 30 KW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Model MEP-005A), Utility Class, 50/60 Hz, (Model MEP-104A), Precise Class, (Model MEP-114A), Precise Class, 400 Hz, including Auxiliary Equipment (DOD Model MEP-005AWF) Winterization Kit, Fuel Burning, (Model MEP-005AWE), Winterization Kit, Electric, (Model MEP-005ALM), Load Bank Kit and (Model MEP-005AWM), Wheel Mounting Kit. (C1-17) 31 January 1975

TM 9-4120-367-14
Operator's, Unit, Direct Support and General Support Maintenance Manual for Air Conditioner, Horizontal, Compact, 18,000 BTU/HR Cooling
Model: F18H, Power: 230V, Single Phase, 50/60 Hz
Model: F18H-3, Power: 208V 3 Phase, 50/60 Hz
Model: K1F-18H-4, Power: 208V, 3 Phase, 400 Hz
Model: F18H-3A, Power: 208V, 3 Phase, 50/60 Hz
Model: F18H-4A, Power 208V, 3 Phase, 400 Hz.
31 August 1993

TM 11-5805-790-12-1
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume I. 15 August 1994

TM 11-5805-790-12-3
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume III. 15 August 1994

TM 11-5805-790-12-4
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume IV. 15 August 1994

TM 11-5805-790-12-5
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A. Volume V. 15 August 1994

TM 11-5805-790-12-6
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume IV. 15 August 1994

TM 11-5805-790-12-7
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume VII. 15 August 1994

TM 11-5805-790-12-8
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume VIII. 15 August 1994

TM 11-5805-790-12-9
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume IX Appendixes and Glossary.
15 August 1994

TM 11-5805-790-34-1
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A (Maintenance Procedures).
15 August 1994

TM 11-5805-790-34-2-1
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A IWire Run Lists).
15 August 1994

TM 11-5805-790-34-2-2
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A (Wire Run Lists).
15 August 1994

TM 11-5805-790-34-2-3
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A (Wire Run Lists).
15 August 1994

TM 11-5805-790-34-3
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A (Schematic Diagrams).
15 August 1994

TM 11-5805-790-34-4
Direct Support and General Support Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A (Cable Maintenance).
15 August 1994

(0)TM 11-5810-323-12
Operator's and Unit Maintenance Manual for Common Equipment Facility, HGF-82/TSEC, HGF-83/TSEC, HGF-85/TSEC. 17 July 1987

(O)TM 11-5810-331-13
Operator's, Unit, and Direct Support Maintenance Manual for Key Variable Generator TSEC/KG-83.
25 July 1989

TM 11-5815-602-10-1
Operators Manual for Terminal, Communications AN/UGC-74B(V)3; Terminal Communications AN/UGC-74C(V)3. 1 March 1987

TM 11-5815-602-24
Organizational, Direct Support and General Support Maintenance Manual for Terminal, Communications, AN/UGC-74A(V)3.
8 January 1984

TM 11-5820-890-10-1
Operator's Manual for SINCGARS Ground Combat Net Radio, ICOM Manpack Radio AN/PRC-119A; Short Range Vehicular Radio AN/VRC-87A; Short Range Vehicular Radio with Single Radio Mount AN/RC-87C; Sort Range Vehicular Radio with Dismount AN/VRC-88A; Short Range Vehicular Radio with Dismount and Single Radio Mount AN/VRC-88C; Short Range/Long range Vehicular Radio AN/VRC-89A; Long Range Vehicular Radio AN/VRC-90A; Short Range/Long Range Vehicular Radio with Dismount AN/VRC-91A; Long Range/ Long Range Vehicular Radio AN/VRC-92A. 1 September 1992

TM 11-5825-272-23
Organizational and Direct Support Maintenance for Display Control Console, OJ-487/TSQ-129. 28 August 1986 (C1-3)

TM 11-5825-282-10
Operator's Manual for Net Control Station, AN/TSC-158(V)1, part of EPLRS. 1 April 1994

TM 11-5825-282-23
Unit and Direct Support Maintenance Manual for Net Control Station, AN/TSQ-158(V)1, part of EPLRS. 1 April 1994

TM 11-5895-857-34
Direct Support and General Support Maintenance Manual for Keyboard-Display Group, OD-169/TYC-39(V) and OD-171/TTC-39(V). (C1) 31 January 1987

TM 11-5895-1392-12
Operator's and Unit Maintenance Manual for Communications System, Control Element, Signal Processor AN/TYQ-30(V)1, AN/TYQ-30(V)2. (C1) 15 September 1991

TM 11-5895-1392-34
Direct Support and General Support Maintenance Manual for Communications System, Control Element, Central Processor AN/TYQ-30(V)1, AN/TYQ-30(V)2. 15 September 1991

TM 11-5895-1393-12
Operator's and Unit Maintenance Manual for Communications System, Control Element, Nodal Processor AN/TYQ-31(V). (C1) 15 September 1991

TM 11-5895-1393-34
Direct Support and General Support Maintenance Manual for Communications System, Control Element, Nodal Processor AN/TYQ-31(V). 15 September 1991

TM 11-5895-1468-34
Direct Support and General Support Maintenance Manual for Storage Device System including Interface Unit, Data Transfer ON-381/TYC and Cartridge, Programmable RD-629/TYC. 15 July 1994 (C1)

TM 11-5895-1544-13&P
Operator's, Unit, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Network Planning Terminal AN/UYK-100 MSE. 1 November 1993

TM 11-6110-249-14
Operator's, Unit, Intermediate Direct Support and Intermediate General Support Maintenance Manual for Power Distribution/Interconnecting Group, Trailer Mounted, ON-224/T. 1 April 1987

TM 11-7025-203-12
Operator's and Organizational Maintenance Manual for Teleprinter, High Speed, TT-768/TYC-39(V). (C1) 14 May 1984

Navy Publications

NAVSEA SE610-AW-MMA-010
Maintenance Manual for Computer Set AN/UYK-7(V), Volume 1. 1 June 1990

NAVSEA SE610-AW-MMA-020
Maintenance Manual for Computer Set AN/UYK-7(V), Volume 2. 1 June 1990

NAVSEA SE610-AW-MMA-030
Maintenance Manual for Computer Set AN/UYK-7(V), Volume 3, Part 1 (Circuit Diag Cont.). 1 June 1990

NAVSEA SE610-AW-MMA-040
Maintenance Manual for Computer Set AN/UYK-7(V), Circuit Diagrams, Volume 3, Part 2. 1 June 1990

NAVSEA SE610-PV-MMM-010
Technical Manual for Design Data for Data Processing Set AN/UYK-44(V). 1 June 1990

NAVSEA SE610-PV-MMO-010
Technical Manual, Organizational Level Maintenance; Data Processing Set AN/UYK-44(V). 1 December 1989

NAVSEA SE640-AF-MMO-010
Technical Manual, Operating Instructions, Maintenance Instructions, Parts List, Installation Instructions; Recorder/Reproducer Set, Signal Data, AN/USH-26(V). 1 June 1981 (C E1)

NAVSEA SE640-AF-MMO-020
Technical Manual, Logic Diagrams, Recorder/ Reproducer Set, Signal Data, AN/USH-27(V). 1 June 1981 (C E1)

NAVSEA SE640-AF-MMO-030
Technical Manual, Diagnostic Programs, Recorder/ Reproducer Set, Signal Data, AN/USH-26(V). 1 June 1981 (C E1)

NAVSEA SE640-AF-MMO-040
Programmer's Reference Guide for AN/USH-26(V) Recorder/Reproducer Set. 15 June 1983

NAVSEA SE640-AF-MMO-050
Installation Guide & Procedures for AN/USH-26(V) Recorder\Reproducer Set. 15 June 1983

NAVSEA 0967-LP-011-2421
Operating Procedures for AN/UYK-7(V), Standard UPAK. 8 June 1982

NAVSEA 0967-LP-024-5454 Part 1
Operating Procedures for Computer Set AN/UYK-7(V), Diagnostic Programs, Part 1, Sections 1 thru 4. September 1978 (C8)

NAVSEA 0967-LP-024-5454 Part 2
Operating Procedures for Computer Set AN/UYK-7(V), Diagnostic Programs, Part 2, Section 5. September 1978 (C8)

NAVSEA 0967-LP-024-5454 Part 3
Operating Procedures for Computer Set AN/UYK-7(V), Diagnostic Programs, Part 3, Section 6. September 1978 (C8)

NAVSEA-0967-LP-024-5454 Part 4
Operating Procedures for Computer Set AN/UYK-7(V) Diagnostic Programs, Part 4. May 1989 (C8)

NAVSEA 0967-LP-024-5464 Part 1
Program Listing for Computer Set AN/UYK-7(V) Diagnostic Programs, Part 1. September 1978 (C7)

NAVSEA 0967-LP-024-5464 Part 2
Program Listing for Computer Set AN/UYK-7(V) Diagnostic Programs, Part 2. September 1978 (C8)

NAVSEA 0967-LP-024-5464 Part 3
Program Listing for Computer Set AN/UYK-7(V) Diagnostic Programs, Part 3. September 1978 (C8)

NAVSEA 0967-LP-024-5464 Part 4
Program Listing for Computer Set AN/UYK-7(V) Diagnostic Programs, Part 4. September 1978 (C8)

NAVSEA 0967-LP-024-5780
Operating Procedures for AN/UYK-7(V) NDRO Programs. 1 August 1982 (C2)

NAVSEA 0967-LP-024-5800
AN/UYK-7(V), Technical Summary Handbook. April 1986

Required Forms

Department of the Army Forms

DA Form 2404
Equipment Inspection and Maintenance Worksheet. April 1979

DA Form 2405
Maintenance Request Register. April 1962

DA Form 2406
Material Condition Status Report. April 1993

DA Form 2407
Maintenance Request. July 1994

DA Form 2407-1
Maintenance Request - Continuation Sheet. July 1994

DA Form 2765
Request for Issue or Turn-In. April 1976

DA Form 2765-1
Request for Issue or Turn-In. April 1976

DA Form 3318
Record of Demands Insert File.

DA Form 4569
USAPC Requisition for Code Sheet.
6 August 1977

DA Form 5251-R
CONAUTH Key Management Worksheet (LRA).
March 1986

DA Form 5251-1-R
CNCS Key Management Worksheet (LRA).
March 1986

Department of Defense Forms

DD Form 173/1
Joint Messageform. March 1979

DD Form 173/2(OCR)
Joint Messageform (red). March 1979

DD Form 173/3(OCR)
Joint Messageform (blue). March 1979

DD Form 314
Preventive Maintenance Schedule and Record.
December 1953

DD Form 1392
Data Messageform. August 1962

Section II
Related Publications

Army Regulations

AR 220-1
Unit Status Reporting. 31 July 1993

AR 380-5
Department of the Army Information Security Program. 25 February 1988

AR 530-1
Operations Security (OPSEC). 1 May 1991

Field Manuals

FM 11-43
The Signal Leader's Guide. 12 June 1995

FM 11-60
Communications-Electronics Fundamentals: Basic Principles, Direct Current.
8 November 1982

FM 11-61
Communications-Electronics Fundamentals: Basic Principles, Alternating Current.
8 November 1982

FM 11-62
Communications-Electronics Fundamentals: Solid State Devices and Solid State Power Supplies.
30 September 1983

FM 11-63
Communications-Electronics Fundamentals: Electronic Tube Theory and Circuits.
7 September 1983.

FM 11-72
Communications-Electronics Fundamentals: Digital Computers. 30 September 1977

FM 24-35
(O)Signal Operation Instructions 'The SOI'.
26 October 1990

FM 24-35-1
Signal Supplemental Instructions

FM 25-100
Training the Force. 15 November 1988

FM 25-101
Battle Focused Training. 30 September 1990

Technical Bulletins

TB 11-5895-1544-10-1
Operator's Manual for Mobile Subscriber Equipment Network Planning Terminal (MSE-NPT). 1 May 1994 (C1)

TB 11-5895-1544-10-2
Operator's Manual for Mobile Subscriber Equipment Network Planning Terminal (MSE-NPT). 1 May 1994

Technical Manuals

TM 11-5805-705-12
Operator's and Unit Maintenance Manual for Digital Data Modem MD-1026(P)/G. (C1) l7 September 1984

TM 11-5805-790-12-2
Operator's and Unit Maintenance Manual for Central, Message Switching, Automatic AN/TYC-39A, Volume II. 15 August 1994

TM 38-L32-11
Functional User's Manual for Direct Support Unit Standard Supply System (DS4): Customer (User) Procedures (Divisional and Nondivisional). 1 June 1989

Related Forms

Department of the Army Forms

DA Form 2028
Recommended Changes to Publications and Blank Forms. February 1974

DA Form 5164-R
Hands-On Evaluation (LRA). September 1985

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:

MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army

DISTRIBUTION:

Active Army, USAR and ARNG: **To be distributed in accordance with DA Form 12-11-E, requirements for STP 11-74G14-SM-TG, Telecommunications Computer Operator-Maintainer, (Qty rqr block no. 5295).**